An Inaugural Address

DELIVERED IN

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BY PROFESSOR JOHN TWEEDY, F.R.C.S.

GENTLEMEN,—As the spokesman, for the nonce, of the Medical Faculty of this College, my first duty is to give you all a hearty welcome; not less to you, old friends, who, mindful of the happy associations of former years, grace these proceedings by your presence, nor you who are the actual participators of our current labours, than to you, young scions of a hopeful race, who are, here and now, to be engrafted upon an ancient and honourable stock. It is, indeed, to celebrate your initiation into the medical profession that we are chiefly gathered together; and custom has prescribed, and good fellowship enjoins, that the occasion should not be allowed to pass without our giving you the assurance that you have here friends to greet you, hands to help you, and willing hearts to serve you. Let me, then, congratulate you on the choice you have made of the profession of medicine as the sphere of your labours, and of this College as the place of your studies.

Whatever may have been the considerations which have led you to enter the medical profession—whether the accident of birth, social relationships and family ties, or the exercise of a deliberate choice—it is not likely that you and your friends have selected this college without some thought and inquiry. This circumstance might seem to render it unnecessary for me to attempt to add strength to your convictions; but I cannot forbear from dwelling upon some of the special advantages which I believe will accrue to you from studying in this place. No vindication is needed of the general scope and character of the education that University College affords. The continued and unvaried success of half a century is a sufficient testimony to its efficacy and its worth. Scarcely a city, town, or village throughout the British Empire but cherishes one or more of her sons. They sit in seats of honour in high places; Royalty calls in their aid; the State avails itself of their knowledge and acumen; Science applauds their genius; Learned Societies award them enviable honours; and Schools of Learning accept their co-operation with delight. The practical sagacity and the true political insight of the founders of this College, the energy and enthusiasm of our predecessors, and the enlightened enterprise of our executive body, have furnished many of the elements of our success. Our museums, laboratories, class-rooms, and libraries, afford facilities of observation, study, and research, which in their entirety are unsurpassed by those of any medical college in the world. Our hospital has supplied the material of the public experience of some of the greatest teachers and practitioners of this age. It has been the scene of the clinical and scientific achievements of Elliotson, of Anthony Todd Thompson, of Robert Carswell, and of Samuel Cooper; and, among those, happily, still living, of C. J. B. Williams, of Walshe, of Jenner, and of Reynolds; of Richard Quain, of Erichsen, of Henry Thompson, and of Wharton Jones. Here, too, Liston performed those marvellous feats of surgical skill and daring that made him the wonder and delight of his contemporaries, the envy and despair of his successors. But it is not only in the practical departments of medicine and surgery that University College has been renowned. From this college and hospital have emanated some of the most famous and permanent contributions to medical literature. The Comprehensive Surgical Dictionary of Samuel Cooper, the classical treatise of Erichsen on the Science and Art of Surgery, that fund of clinical record blended with philosophical reflection in Walshe's works on Diseases of the Heart and the Lungs, and Quain's copious and authoritative text-book of Anatomy, had their birth and have received most of their nurture within this fold. Nor have we been behindhand in the higher departments of scientific thought and investigation. This college has, from its very foundation, been distinguished from most other medical schools by the plan and method of its studies. Its guiding principle has been to teach by great authorities, by specialists and experts in their particular departments of learning. This has given to its teaching a thoroughness, reality, and dignity that have enabled a large proportion of its pupils not only to excel as practitioners, but also to attain distinction as students of science. Nor have these results been casual or fortuitous; they have been, rather, the anticipated culmination of a sagacious and well-regulated system.

There is a collateral advantage, amounting almost to a privilege, which the medical student in this college may enjoy. This institution is not a medical school only; it is a large educational establishment, embracing also the Faculties of Science and Arts, and employing the services of men eminent in every department of thought. Its range of studies is therefore wide and encyclopædic, and exhibits many of the social and intellectual characteristics of a university. Though a student cannot, of course, pursue every subject that is open to him, even in his own Faculty, and still less in other Faculties, he cannot fail to be a gainer by living among those who represent the entire circle of knowledge. He breathes an intellectual air, and profits by traditions which are independent of particular teachers. Though the relationships between the students in the medical and other faculties have not always been so close and so harmonious as might have been wished, there are real and substantial benefits to be gained by a freer intercourse and a closer intercommunication. In the Faculties of Science, and of Arts and Law, you will find many earnest and anxious toilers after truth, who are doubtless destined to take high places among the thinkers and the workers of the immediate future; and it is to your intellectual and moral advantage, to say nothing of your social interest, to make the acquaintance of such, and to grow up in friendly communion with them.

Though I have given precedence to your connexion with University College, I would not have you suppose that I regard this as the permanent order of relative importance. While I wish you to cherish sentiments of affection and loyalty to this college, I am not so devoid of the sense of relativity as to place this institution in the forefront of your thoughts. It is Medicine, its aims and aspirations, that is to be the absorbing passion of your lives. You are to be medical men first, and University College men afterwards. To this end it is necessary that you should have clear notions of what Medicine is, in order that you may comprehend its character, be faithful to its traditions, and zealous for its honour and advancement.

What, then, is Medicine? To most of you it may at present seem enough to call it the art of diagnosing disease and prescribing remedies. It is this; but it is something more. Medicine is essentially the Science of Health. So long as the idea of medicine was limited to the study and treatment of disease, its progress was slow and uncertain, and its place in the hierarchy of intellectual pursuits doubtful and ill-defined. Now, however, the medical profession would still retain the most important part of its duties, and all, or more than all, its present share of honours, if every drug in the Pharmacopœia were to become extinct. The credulous faith in the efficacy of drugs is, and always has been, the secret of the success of every form of charlatanism. Medicine, then, being not merely the art of healing, but the science of life in its organic relations, the duty of studying and investigating the phenomena and conditions of health becomes paramount. It was the recognition of this truth that raised Hippocrates and his school out of the region of mere empiricism. Before his time, medicine in Greece had been cultivated in the priestly schools of the Asclepiadæ, and had remained a mere technical craft, based upon hereditary experience. But Herodicus, who is said to have instructed Hippocrates in the use of gymnastics in the treatment of diseases, sought to fix the rules of a scientific promotion of health. Inquiry was instituted into the influence of various nutriments and ways of life, and thus was created a new art, which had reference, not to the treatment of particular diseases, but rather to the invigoration and preservation of the human organism as a whole. The efforts of Hippocrates and his followers were, however, rather to promote the health of individuals, whereas the aim of modern medicine is, in addition, to conserve and protect the health of communities. Imagine the condition of a large city like London, with four millions of persons congregated upon the comparatively small area of a hundred and twenty square miles, without the sanitary and other resources which medical science has bestowed upon civilisation. What a light

has hygiene thrown upon the relations existing between the character of the soil, drainage, light, ventilation, food, water, clothing, and occupation, and the origin and spread of disease. Consumption, pneumonia, typhus and typhoid fevers, various epidemic and endemic diseases, malaria, dysentery, gout, and paralyses of many forms, are now known to depend upon preventable physical conditions. Small-pox, which up to the beginning of the present century inflicted such ravages, and even now makes frightful havoc upon unprotected communities, has been rendered practically eradicable by the means of vaccination. Cholera, as we have lately had experience, has not for us the terrors which it had for our fathers; its conditions have been ascertained, its secret discovered, and its malignancy disarmed. The experimental investigations of pathologists—and among them those of our Holme Professor of Clinical Medicine, Dr. Wilson Fox, have an honoured place,—aided by the beautiful microscopical researches of Koch, are elucidating the causes and origin of consumption, and have already kindled eager hopes of its effectual prevention.

The scope of medicine is therefore far-reaching, and in order to comprehend the whole science of medicine in the sense just defined, as the art of treating disease and the science of health, it is necessary to premise the study of the natural behaviour of living matter—that is, Physiology. Strange as it may appear to uninitiated minds, the grandest discovery and generalisation of modern medicine is that disease is healthy action gone wrong, or, as Mr. John Simon has described it, "Pathology consists in the science of life under other conditions than those of ideal perfection." Physiology is therefore the true foundation of medicine. This may seem heterodoxy to those who have been brought up under the influence of the older doctrine that anatomy is the basis of medicine. True; anatomy is indispensable to the study of physiology; but anatomy is notoriously incapable of solving the simplest biological problem. Dr. Daremberg, in his learned history of the medical sciences, has observed that an examination of the history of medicine shows that the fate of pathology is bound up, scientifically and historically, with the fate of physiology; and that anatomy has not only at all times failed to reform physiology, but that ancient physiology, which was for the most part only a tissue of *a priori* speculations, has not unfrequently contributed to corrupt anatomy. Modern physiology has, however, amended itself by the experimental method, and henceforth is not likely either to miss its own way or to allow anatomy to go astray. On the contrary, it has opened up for anatomy new paths, and has, at the same time, furnished more solid bases of support for the reform of pathology. Do not mistake my meaning. I do not wish to say anything that can in the smallest degree be construed as depreciating the *absolute* value of anatomy. I merely protest that its *relative* rank needs to be readjusted. Anatomy is of primary importance to the study and practice of medicine; it is the very A B C, without which no real progress can be made. As without an acquaintance with the alphabet there can be no literary culture, so without anatomy there can be no medical attainments. Were it not for this, and for the help which a knowledge of topographical anatomy renders to the operating surgeon, the educational value of human anatomy, consisting as it does almost exclusively of the observation and remembrance of unrelated facts, would be extremely small, while its utility as a means of intellectual culture is absolutely *nil*. It is only when anatomy takes on a synthetic character, and becomes comparative in its method, that it first assumes the quality of a science. Nevertheless, anatomy is indispensable in a medical education, and to be of any service it must be almost exclusively practical. Now, practical anatomy means dissection, and this study is, to a beginner, revolting and disgusting. No man of nice feeling can at first take any pleasure in dissecting a human corpse. To remain unmoved in the presence of death indicates a callous rather than a courageous disposition. I envy not that man who enters a dissecting-room for the first time without an "inward horror." Men who have afterwards become enamoured of anatomy and acquired authority in it have recorded their first repugnance to dissection. Aristotle, the founder of comparative anatomy, and who is said to have dissected as many as five hundred different kinds of animals with his own hands, expresses the repugnance that he felt at the sight of the primordia of the human body. Haller observes that the "nature of death impresses us with horror, and that there is nothing sadder than a deadhouse." George Henry Lewes, distinguished alike as an anatomist, physiologist, and philosopher, has eloquently described the repugnance which human dissection creates, and the fascination by which it can alone be suppressed. "The fascination must," he says, "be strong, for the disgust is powerful. Our senses are affected by the sickening scent of a corrupting body, by the painful sight of bloodstained instruments, and the scattered shreds of a dismembered corpse. There is also a deeper moral disgust, peculiarly affecting to imaginative minds. The spectacle of death is always accompanied by a certain awe. At the bedside or on the battlefield no gazer remains unmoved; pity, and a sense of community in death, steal over every mind when unshaken by violent emotions. How much more painful the dissecting-room, where the corpse is untended by affection, and unpitied by strangers! none of the sanctity of death surrounds it; none of the tenderness of love watches over it; none of the ceremonials of respect defend it. There it lies, naked, and alien alike from affection and respect, flung upon the table in oblivious disregard of its having once been the temple of a human life. It is no longer that temple; it is not even a corpse; it has become a *subject*. Yet all these sources of repulsion have been, and daily are, overcome. Men sit patiently for many hours, inhaling the nauseous odours, exploring with their scalpel the winding intricacies of vein and nerve, steadfast, patient, victorious. They have suppressed the suggestions of the scene by firmly fixing their minds on the object of their task. It is not because their sensibilities have become obtuse, but because their power of abstraction has overcome the solicitations of suggestion. They have not become hardened; they have simply learned to concentrate their thoughts upon a definite pursuit. Were it not for this we might wonder that men did not consent to remain for ever unenlightened on the marvels of their organisation, rather than acquire the knowledge by so repulsive a route." But when the prejudice against anatomy is finally overcome by the passion for knowledge it even intensifies the finer sensibilities of our nature. Bossuet, of whom it has been said, "he is not so much a man as a human nature with the temperance of a saint, the justice of a bishop, the prudence of a doctor, and the might of a great spirit"—Bossuet, with all his delicate and tender sympathies for everything that was pure, noble, and refined, was not repelled from the study of anatomy, and even wrote a tractate upon it; and Goethe, though a practised anatomist, could not look upon the body of Schiller dead.

While anatomy furnishes the material substratum of physiology, there are other studies equally necessary in the investigation of the phenomena of living matter. Botany and chemistry are only second in importance to anatomy; and though it is the fashion nowadays to decry botany and to advocate its abolition from medical studies, I entertain a very strong opinion that in the whole range of natural science there is no subject so well adapted for initiating a student into the Inductive Method. It encourages observation, it affords the opportunities of generalisation, and, at a very small expenditure of time and money, enables the student to gain an insight, pure and experimental, into the operations of living matter. Standing, as it does, midway between the animal and mineral worlds, botany, it has been observed, indicates their relation to each other, and at different points touches the confines of both. It throws great light on the functions of nutrition, and on the laws of development; while from the marked analogy between animals and vegetables, there is every reason to hope that its further progress, assisted by that of electricity, will prepare the way for a comprehensive theory of life to which the resources of our knowledge are still unequal, but towards which the movements of modern science are manifestly tending. Botany, it is true, may not now be of the same technical value to the practitioner as formerly, but its educational value to the student has correspondingly increased. It will be an evil day for medicine when all its studies are regulated only by considerations of utility. This word "utility" is the bane of modern education. It is tending to eliminate all culture from scientific pursuits. It is an *ignis fatuus* that is leading us into a bog of stolid dulness. Those who cannot see any relation between a liberal education and the requirements of practical life are constantly clamouring for the substitution of technical instruction for classical and literary studies. The pernicious influences of the doctrine of utilitarianism have not, perhaps, made such havoc in England as they have in America, but they threaten sooner or later to confound us. Over fifty years ago Longfellow raised an eloquent protest against the absorbing utili-

tarianism of the age. "With us," he says, "the spirit of the age is clamorous for utility; for visible, tangible, utility; for bare, brawny, muscular utility. We would be roused to action by the voice of the populace and the sounds of the crowded mart, and not 'lulled asleep in shady idleness with poets' pastimes.' We are swallowed up in schemes for gain, and engrossed in contrivances for bodily enjoyment, ... as if this particle of dust were immortal, as if the soul needed no aliment, and the mind no raiment." We too often limit the application of the word *utility* to those acquisitions and pursuits which are of immediate and visible profit to ourselves and the community, regarding as comparatively or utterly useless many others which, though more remote in their effects and more imperceptible in their operation, are, notwithstanding, higher in their aim, wider in their influence, more certain in their results, and more intimately connected with the common weal. "The word 'utility,'" continues Longfellow, "has a wider signification than this; it embraces in its proper definition whatever contributes to our happiness, and thus includes many of those arts and sciences, many of those secret studies and solitary avocations, which are generally regarded as useless or as absolutely injurious to society. Not he alone does service to the State whose wisdom guides her councils at home, nor he whose voice asserts her dignity abroad. A thousand little rills springing up in the retired walks of life go to swell the rushing tide of national glory and prosperity; and whoever in the solitude of his chamber, and by even a single effort of his mind, has added to the intellectual pre-eminence of his country, has not lived in vain, nor to himself alone." In the medical profession, the greatest and the best have usually been the most cultured and the least tainted by this spirit of utilitarianism. Hippocrates, Galen, Linacre, Boerhaave, Haller, Mead, Freind, Francis Adams, and Daremberg were all scholars; and even among the men of the greatest practical skill, not a few have been distinguished by their attainments in elegant and polite learning.

As to the way in which you are to pursue your studies, there is little for me to say. Of advice you have no doubt already had as much as you care for, and despite any suggestions or recommendations I might make, you are more likely to fall in with the traditions of the place, and with the practices of your fellows, than with any theories of mine. But take care that the traditions you follow are the best traditions. Do not forget that diligence and industry will make up for many intellectual imperfections. Remember, too, that your organisation is multiplex, and that you need to train your senses, your understanding, and your reason, and have all your faculties under the governance of a resolute and vigorous will. "All our knowledge," says Kant, "starts from the Senses, goes on from them to the Understanding, and ends with Reason, than which nothing higher is found in us, either to work up the material which we derive from the intuitions of sense, or to evolve the highest unity of thought." To be, then, useful and accomplished men, it is necessary for you to engage in those exercises which will train your external senses, cultivate your understanding, and refine and ennoble your reason. The medical curriculum embraces studies adapted to each and all these purposes. What they are and how they are to be pursued, I will not now stop to explain. But a caution is needed. There are two extremes to be avoided; almost equally dangerous, though in different ways—working too much is nearly as bad as working too little; perhaps of the two the more grievous damage is done by excess. An idle and desultory student may, by resolute application, do something to redeem the follies of the past; but a student who, through misguided zeal, or over-anxiety, or from fear, has lavished his strength too prodigally on his task, to the neglect of his physical well-being, may find too late his forces undermined and his energies consumed. Regulate, then, your hours of work, and study so that you may have ample leisure for the needs of recuperation, recreation, and refinement. Learn the secret of losing time rationally. Literature, music, the drama, the fine arts, and the society of persons of refined, though simple, tastes afford abundant opportunities for instruction and amusement and facilities for the best æsthetic culture. Out-door exercises, as walking, boating, cricket, Volunteering—whether you enlist in the service of Mars or in that of Hygeia, to shoulder the rifle or attend the ambulance—will invigorate your body, refresh your mind, and repair the damage your growing frame sustains in the noxious atmosphere of hospital, laboratory, and dissecting-room. These exercises, too, supply the only opportunities of witnessing and admiring the natural beauty of earth and sky and sea; the variegated hues of gem and flower; the painting of insect, bird, and beast; the brightness of sunshine, the iridescence of the rainbow, the rippling of shallow streams, the sheen of still water, the flash and roar of storm and tempest. A memory plenished from the storehouse of poet and philosopher, artist and orator, novelist, historian, and divine; a mind that gives "to forms and images a breath and everlasting motion;" "an eye made quiet by the power of harmony and the deep power of joy" will soothe the tired brain, bring solace to the careworn heart, brace the unstrung nerves, and lighten the weary tread. Cultivate the habit of wishing to discover the Good and the Beautiful in all that meets and surrounds you; the disposition that

> "Finds tongues in trees, books in the running brooks,
> Sermons in stones, and good in everything."

Gentlemen, no education should be exclusively technical or even intellectual, and certainly not that of a medical man. Hippocrates gave ethical dignity to medical practice. No one showed more respect than he for patients, more solicitude for their welfare, or at least for their solace and consolation. No one has ever had a more correct appreciation of the relations which should exist between medical men themselves and between the medical practitioner and his patient and the public. Guy of Chauliac, who flourished in the middle of the fourteenth century, was equally exalted in his ideals. "A surgeon," he says, "should be learned, expert, ingenious, and well mannered; he should be bold when sure, cautious in danger; kind to patients, gracious to colleagues, modest in giving an opinion; chaste, sober, pitiful, and merciful, and not greedy of gain." These are noble teachings, which each of us may follow, however haltingly and afar off. Whatever may be our ideals, they have only moral value when they amend our lives. Grave deep upon your hearts the moral maxims of the master mind of medicine, and of the illuminator of modern philosophy. "With purity and with holiness I will pass my life and practice my art" was the pledge demanded by Hippocrates of every novitiate of medicine; and "Never act otherwise than so that you can will that your maxim should become a universal law" is the unsurpassable ethical dictum of Imanuel Kant. Inexperienced in the course of the world, incapable of being prepared for all its contingencies, ask yourself: Can I will that my principle of action shall be a universal law for the guidance of every other man? Be not deceived; the study and practice of medicine are not of themselves refining or ennobling to the natural man. Among those who are engaged in the treatment of disease are some of the meanest and cruellest of their race. Quacks and pretenders have been the pests of every age. What elevates and ennobles medicine is Science—that "fair, effusive ray" which Akenside, himself a distinguished physician, invoked as the guiding principle of his life.

> "That last best effort of thy skill,
> To form the life, and rule the will,
> Propitious power! impart;
> Teach me to cool my passion's fires,
> Make me the judge of my desires,
> The master of my heart.
>
> "Raise me above the vulgar's breath,
> Pursuit of fortune, fear of death,
> And all in life that's mean:
> Still true to reason be my plan,
> Still let my actions speak the man,
> Through every various scene."

It is Knowledge that purifies our nature; it is Science that gives moral dignity and value to our calling. To a worldly-minded man the rewards of medical labour are not worth the toil. The remuneration is not adequate to the anxious and arduous care of professional life; to the struggles against opposition, adversity, and disappointment; to the lack of honours, luxuries, and even comforts. But to a mind imbued with the modest and unselfish spirit of science, the rewards of a good conscience and of a sense of duty properly performed, are sufficient. You, and all of us, are engaged in the pursuit of this science, and in a work of humanity and love. We are inheritors of a useful art, the heirs of a noble learning, the depositories of godlike knowledge. On our efforts, collectively and individually, will depend in a large degree the character and the influence of our art and our science during the coming generations. The way in which we discharge our duties and fulfil our obligations to the profession, to ourselves, and to the world, will influence for good or for evil medical and social life for years to come. Higher than mere earthly honours and earthly dignities, the

reward we covet is that of being numbered among the true workers in science and searchers after truth—Science that has revealed the mysteries of our organisation, eradicated superstition from our minds, extended wide the bounds of knowledge, and put back the limits of the unknown, abridged both space and time, strengthened our intellectual gaze till we almost pierce the veil of Eternity and realise the Life beyond.

Gentlemen, my task is nearly done. I have only to add my own good wishes to those of my colleagues for your health, happiness, and success.

INVESTIGATIONS RELATIVE TO INHALATION AND DISINFECTION.

WITH DESCRIPTIONS OF NEW FORMS OF APPARATUS.

BY ARTHUR HILL HASSALL, M.D. LOND.,

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IN my paper published in THE LANCET of the 5th of May last I stated the results of certain experiments made with some of the principal of the oral and oro-nasal inhalers now in use, and I showed that after the completion of one and even two hours' inhalation more than four-fifths of the antiseptic substances usually employed, as carbolic acid, creasote, and thymol, were recoverable from the sponge or cotton-wool of the inhaler. I pointed out that there were several ways in which the small loss which had taken place might in part be accounted for, without its being supposed that the antiseptics had really made their way to the seat of the disease in the lungs themselves. I have since continued my investigations and made many further experiments bearing on the subject of inhalation. In a paper communicated to the British Medical Association at its recent meeting at Liverpool, I gave the results derived from certain trials and experiments made with some of the chief air and steam sprays, and I showed that in the case of the sprays also a very large proportion of the antiseptics employed were recoverable; the inference being that, except in the case of throat affections, they were but little more effective than are the oro-nasal and oral inhalers, as at present constructed and used. In the same communication I detailed the results of experiments with an apparatus devised in imitation of natural respiration; these proved that, using the oral and oro-nasal inhalers and the air and steam sprays as at present practised, not more than traces of the antiseptics used made their way into and were to be detected in the water or spirit contained in the receiver, or Woulfe's bottle, placed at the end of the trachea of a recently killed sheep. (For further details in reference to these experiments the reader is referred to the paper above alluded to.) Recognising the inefficiency of the means now resorted to, for introducing into the lungs various antiseptic and other curative substances by means of inhalation, I was led to consider whether it were not possible to charge the air of a chamber with the required medicaments, and these in the proper amounts, and I have communicated my observations and experiments under this head to the British Medical Association in a second paper.

Without entering into details, I may here state that I have arrived at the conclusion that such a charging of the air of chambers is really practicable, an object which has not, so far as I am aware, been hitherto accomplished. For effecting this purpose I rely on two principles: one is the greatly increased volatilisation of certain chemical substances, which at the ordinary temperature of the air are but little volatile, obtained by spreading the substances over a very considerable surface, and exposing them either in the air or on water. To show the effect of this principle, I may mention that 50 grammes, or 770 grains, of carbolic acid, exposed to the air on a rough and moistened fabric, having a superficies of eight square feet, had disappeared, and were entirely lost at the end of thirty hours. Now, had the same quantity of the acid been exposed to the air in any vessel presenting only a small surface, the loss would have been but trifling, and in fact the weight of the crystalline acid would have become increased by the formation of the liquid hydrate. The second principle is the augmented evaporation obtained by increase of temperature in combination with extension of surface. Armed with these two principles, applied in a practical manner, we possess the means, as I have said, of charging chambers with medicaments to any required extent, and of forming true inhalation chambers. The second paper already referred to, dealt mainly with the principles of the construction of inhalation chambers, and did not enter into any definite description of the means to be employed; these details were left for further observation and inquiry.

I now proceed to give the necessary data on which the methods to be used are based, and to describe the apparatus I have devised. A piece of Turkish towel 16 by 11 inches, giving a superficies on the two surfaces of 352 inches, was moistened with 100 cubic centimetres of water, containing 100 grains of carbolic acid. Six of such pieces were similarly treated, suspended on glass rods, and the amount of carbolic acid contained in them determined at the end of each successive hour; the quantities recovered were 82·79, 75·49, 63·89, 57·02, 48·73, and 41·39 per cent. These figures show a progressive loss each hour of 17·21, 24·51, 36·11, 42·98, 51·27, and 58·61 per cent. Thus, if the six pieces had all remained suspended for the six hours, of the 600 grains of carbolic acid used in charging them, no less than 350 grains would have disappeared, or more than one-half. Six cloths of the same dimensions were next taken, each being moistened with a mixture of spirit and water in equal parts, containing 120 grains of creasote; the entire quantity in this case for the six cloths would therefore be 720 grains. There were recovered at the end of each successive hour the following amounts: 103·5, 86·8, 83·7, 80·8, 72 0, and 66·0, showing a loss of 16·5, 33·2, 36·3, 40·0, 48·0, and 54·0. Thus, of the 720 grains taken, no less than 324 grains would have disappeared had all the cloths been suspended for the six hours. Lastly, five cloths were each moistened with a mixture of spirits of wine and water, in equal parts, containing 5 grammes of thymol, =77 grains; these cloths therefore contained 25 grammes of thymol, or 385 grains. The following amounts were recovered each hour: 4·74, 4·44, 4·08, 3·88, 3·12 grammes, =73·0, 68·3, 62·8, 59 7, and 48·0 grains respectively, the loss for each cloth in grains standing thus: 4·15, 8·78, 14·30, 17·4, and 29·15 respectively.

Here, again, the loss is very considerable, although not so great as in the two previous cases. Had all the cloths been exposed the whole time, the loss would have amounted to 145 grains out of the 385 originally taken. A considerable loss, of course, also takes place in the case of other but little volatile substances, exposed in the same manner on an extended surface, dissolved, if necessary, in suitable menstrua, the extent of the loss being proportionate to the natural volatility of the substance and its solubility. If the loss is so great resulting from the exposure of such a limited superficies as is afforded by a suitable fabric of 16 by 11 in., it is obvious that by extending the surface we possess a most powerful means for charging the air of a chamber with any required medicament, although it may possess only a feeble volatility at ordinary temperatures, and this to any extent required. But there is still another means whereby the same result may be aided or accomplished—namely, by exposing the substances on a comparatively extended surface of water, or even by dissolving them in it, raising and maintaining in some cases the temperature of the water at certain fixed degrees.

The following figures will serve to show the results obtained by this proceeding. Two grammes and a half of carbolic acid were dissolved in 150 cubic centimetres of water, and placed in a small glass dish having a superficies of eight inches; five other dishes were similarly charged, and all were floated on a water-bath, the temperature of the liquid in the dishes being maintained at about 74° C., or 165° F. And here I would remark that the temperature should always be taken of the liquid in the dishes themselves, and not in the water in the outer bath, as there is often a difference of 6° to 8° between the two, according to the nature of the vessels employed. The quantity of carbolic acid therefore contained in the six dishes amounted to 15 grammes, or 231 grains. The amounts recovered were 1·838, 1·470, 1·116, 0·868, 0·661, and 0·511=28·3, 22·6, 17·2, 13·3, 10·1, and 7·8 grains respectively. It thus appears that of the 38·5 grains originally present only 7·8 grains remained at end of the six hours. It follows therefore that of the 231 grains originally taken all but 47 grains would have been dissipated had all the dishes been

exposed for the same length of time, equivalent to more than three-fourths. With similar quantities of creasote—namely, 2·5 grammes—for each dish the results stand as follows:—In the first experiments the creasote was allowed to remain at rest, the greater part sinking to the bottom, it being only partially soluble in water, and part floating on the surface. There were recovered successively 1·245, 0·894, 1·10, 0·51, 0·21, and 0·37 grammes, = 19·17, 13·76, 16·94, 7·85, 3·23, and 5·69 grains. Thus, in this case had the temperature of all the dishes been maintained for the six hours, no less than 197 grains would have disappeared out of the 231 grains originally taken.

When, however, the contents of the dishes were stirred occasionally with a glass rod, whereby the heavier portions of the creasote, which had fallen to the bottom of the dishes, became broken up and dispersed, the loss was still more considerable, as indicated by the following figures:—0·76, 0·62, 0·43, 0·13, 0·035, 0·00,—11·70, 9·54, 6·62, 2·00, 0·54 grains, while from the last dish the whole of the creasote had disappeared. The experiments with thymol furnished results almost equally striking. This substance is soluble only to a trifling extent in water, and when exposed to the air at ordinary temperatures, although it gives off its pleasant smell freely, it scarcely loses weight at all; thus, 15 grammes exposed to the air were found to have lost only the most trifling amount at the end of a fortnight. But thymol melts rapidly in hot water, and, being lighter than water, floats upon and spreads over its surface in a thin scum, and in this condition it becomes rapidly volatilised, as will be apparent on an examination of the annexed figures. 2·5 grammes being added to each of the six dishes containing the usual amount of water, the temperature of which was maintained at 74° C., the following amounts were recovered:—1·82, 1·23, 0·874, 0·64, 0·36, 0·096 grammes = 28·02, 18·94, 13·46, 9·85, 5·54, and 1·47 grains. Thus, had the experiments been continued with all the dishes for six hours, the loss would have amounted to 123 grains out of 131 taken at the commencement.

Armed with these principles and data I have been led to devise the following forms of apparatus, the first two being intended for charging the air of chambers for inhalation and disinfection. The first of these, which I have named the "chamber inhaler and disinfector, No. 1," consists of a long fabric woven so as to afford a very large extent of surface for evaporation. The length and breadth of this vary with the extent of the effect required to be produced. This is spread out in several tiers one above the other, by means of an arrangement consisting of a double series of rails which are attached to a box, and which lift out and in. These, when not in use, are packed away in the box, which also contains a tray to catch any drippings, and a tin box to receive the longcloth.

A second apparatus, the "chamber inhaler and disinfector, No. 2," consists of an outer water-bath to which a thermometer is attached, and an inner porcelain dish divided into four equal parts. The divisions of this are also filled with water, the temperature of which, by means of the outer bath, can be regulated and maintained to a nicety. With this apparatus, if desired, no less than four antiseptic or other substances may be used at the same time, either for inhalation or disinfection. It combines the advantages of moderate extent of surface with a temperature augmented, but regulated according to the nature and composition of the substances used—a very valuable combination. No hospital should be without one or more of these powerful disinfectors, especially the No. 1 "chamber inhaler and disinfector." It will also be found of great service in private houses in cases of infectious disease. In using them one important fact must be borne in mind—namely, that it is not possible to charge the air of any ward or room with any medicinal substance or disinfectant while the doors and windows are open, as of course any amount of the substances which may be eliminated will be too rapidly dispersed to be of any service. It is not possible therefore to combine either effective inhalation or disinfection with free ventilation.

It occurred to me that some, at all events, of the advantages gained by increasing the surface of exposure might be obtained by applying the principle of extension to the construction of oro-nasal and oral inhalers, and with this object I made a variety of experiments. Without giving in detail the results of these, I will now describe two inhalers I have devised, the "globe" oro-nasal inhaler, and the "globe" oral inhaler.

That the inhalers at present employed are defective in construction in many ways, and are all but useless in practice, particularly in chest affections, has, I think, been sufficiently demonstrated. One defect is that, as a rule, they are not accurately adapted to the contour of the face of the wearer, so that air enters freely through other than the proper channels. Another is, that the amount of the substances used is generally much too small, and this is also the case with the materials on which these are placed; then the nature as well as the size of the materials selected, such as sponge or cotton-wool, are but ill-suited to the object in view, since they hold but a few drops of liquid, and even these are sufficient so to clog them as to render them more or less impermeable to the air, which should pass in all directions freely through them. In fact, the physics of the right construction of oro-nasal and oral inhalers have been even less studied than has the chemistry of the substances employed. The "globe" oro-nasal inhaler consists of a covering for the nose and mouth of a material which, becoming flexible in hot water, may be accurately adapted after it is made to the contour of the face of the wearer—a point of great importance with all oro-nasal inhalers. To this is attached a light glass globe, which is filled with a suitable material packed so lightly as to allow of its ready permeation by the air drawn through it in inspiration. This is then charged with the medicines desired to be employed. Supposing carbolic acid to be used, the quantity would be from 1½ to 2½ grammes, = 23·14 and 38·57 grains, partially dissolved in 8 c.c. of water, = 2 drachms. The extent of the loss of this antiseptic varies according to the amount of the acid taken, the care with which the globe is charged, the greater or less vigour with which the act of inspiration is carried on, and the length of time occupied in the inhalation. When 2½ grammes are used and the inhalation continued for two hours the loss varies from half to one gramme, or 15·4 grains.

Although I have repeatedly used my "globe" oro-nasal inhaler with a charge of 2½ grammes of carbolic acid and have inhaled for two hours at a time, I have never experienced any decidedly ill effects, still I would recommend that the quantity used to begin with should not exceed 1½ gramme. The Pharmacopœial dose of carbolic acid for internal administration is one grain only. What portion of the amount of the antiseptic which disappears actually makes its way into the lungs has yet to be determined, but there is no question that, with my apparatus, much of it does really enter the system, part of it being absorbed by the mucous membrane of the mouth and fauces. A little, no doubt, is lost on the skin, and when a moustache or beard is worn, upon it as well. While using this inhaler the carbolic acid may be strongly smelt and tasted, and in a short time the skin of the lips becomes whitened and a tingling sensation may even be experienced in them; these last effects are produced wholly by evaporation, as, although the quantity of water or other menstruum used is several times larger than that employed in ordinary inhalers, not a drop ever escapes from the inhaler to the mouth, as so often occurs with most other oro-nasal inhalers. The last apparatus, the "globe" oral inhaler, consists of a glass globe with, on the distal side, an aperture and cribriform plate for the entrance of the air during inspiration, and on the near side a flattened tube for the mouth, guarded by a valve, which prevents the air being discharged into the globe during expiration. The nose is uncovered, the flattened tube only enters the mouth, and the air is drawn through the globe in the same manner as through a cigar or pipe. By the use of this inhaler, the objection so often urged against oro-nasal inhalers is removed: that by covering the nose and mouth they restrict the entrance of the air and greatly impede respiration; moreover, its employment is far less irksome and fatiguing; it may be taken up or put down in a moment, and when once charged it may be used for one or two days, in most cases without requiring to be refilled. The ordinary quantities of carbolic acid for this inhaler are the same as those for the "globe" oro-nasal inhaler. All persons do not use oro-nasal inhalers alike; some inhale simply by the nostrils and close the mouth during inhalation, others inhale by both the nose and mouth, and this is the best way, since the mouth being open, a portion at least of the medicaments used make their way directly to the throat without having to take the longer and more tortuous course, with the inevitable result of part of the substances becoming absorbed. The "globe" oral inhaler has therefore a distinct advantage over the "globe" oro-nasal inhaler in that the whole of the

medicaments pass at once into the mouth, none being lost on the skin of the face and lips, on the moustache or beard, or in the convolutions of the nares.

I have communicated all the necessary particulars to Mr. Banks, of the firm of Messrs. Maw, Son, and Thompson, respecting the four different kinds of apparatus above described, and he is now having them constructed. The firm will therefore, I hope, be prepared to supply them very shortly.

San Remo.

THE SURGICAL TREATMENT OF TUMOURS AND OTHER OBSCURE CONDITIONS OF THE BLADDER.

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A PAPER read by Sir H. Thompson at the meeting of the Medico-Chirurgical Society, on the 11th April, 1882, and further supplemented by a communication on digital exploration of the bladder, which appeared in THE LANCET of May 6th, and his more elaborate contribution to the Medico-Chirurgical Society on the 23rd January, 1883, entitle him to the credit of having popularised an operation which had previously been confined to the practice of a few surgeons, and which hitherto had not been recognised in any of the standard works on surgery. This operation, having now received the sanction of a surgeon of such unquestionable authority and such unrivalled experience as Sir H. Thompson, promises to open out a fresh field for cultivation in surgery, and a new sphere for affording relief in cases which hitherto have remained unrecognised and unrelieved.

The operation of opening the urethra in the membranous portion in cases of impassable stricture and cases of retention is an operation long familiar to all practical surgeons; but when it is performed for the simple purpose of investigating obscure diseases of the bladder, and with the prospect that some condition may be discovered amenable to operative relief, we recognise an idea, the full valuable significance of which does not appear to have been fully realised by anyone before.

With the object of contributing to this important subject, we propose to record a number of cases which have come within our immediate knowledge in public and private practice, and to draw attention to certain points which have forcibly arrested our attention in the study of these cases.

Previous to relating the cases, it has seemed advisable to give a brief *résumé* of the more salient pathological features of bladder tumours, and shortly to refer to the means at our disposal for arriving at a diagnosis of their resence and nature.

Tumours of the bladder may originate primarily in its walls, or may extend to them secondarily from neighbouring parts, such as the uterus, rectum, or pelvis.

With the secondary growths we are not at present concerned. As regards primary growths, the bladder, we must remember, being developed from hypoblast and mesoblast, is, according to the blastodermic theory of tumours, able to originate epithelial growths as well as those of the connective tissue, muscle, nerve, and vessel types. The bladder is constructed of connective tissue and muscular walls, and is lined internally by a stratified epithelium, developmentally sprung from hypoblast. The mucous membrane has no papillæ on its surface, but it contains, particularly towards the neck of the bladder, some racemose glands. Each of these tissues, theoretically, may be the seat of tumours common to them in other situations. The connective tissue may give rise to growths of adult or embryonic connective tissue (fibroma, myxoma, enchondroma (?), and sarcoma); the muscle to myoma, the epithelium to epithelioma, and the gland epithelium to carcinoma. Experience fully bears out these theoretical considerations. Enchondroma is added to the list on the authority of two cases, one published in the *Gazette Médicale de Paris*, 1836, the other communicated to the Société Anatomique;[1] but it is considered probable by Cornil and Ranvier that in the latter case the bladder was secondarily implicated, the tumour having originated primarily in the pelvis. In this enumeration the most common tumour is omitted, that is the so-called villous tumour. The villous tumour consists of numerous simple or branched processes springing from the submucous connective tissue; each process is composed of connective tissue in very small quantity, supporting fine blood-vessels, and is covered with a thick layer of epithelial cells; the submucous connective tissue from which it grows does not show the least trace of pathological tissue. The term villous has been derived from the naked-eye appearance of the growth, and has, of course, no pathological significance. These tumours have from time to time received various names; but of these the term papilloma appears to us the best. This view is open to the criticism that there are no papillæ normally in the mucous membrane of the bladder, and that these villous tumours spring from the submucous connective tissue, and that consequently they have more affinity with fibromata; but in their typical form they consist simply of vascular loops supported by connective tissue and covered by epithelium—a structure exactly corresponding to normal papillæ—and therefore to be regarded as a true papilloma of new formation.[2] On the other hand, all tumours with a papillated surface are not papillomata; the point of distinction in these cases is found in the base of the growth; if, for instance, the base be distinctly fibrous, the tumour is most correctly termed a papillary fibroma; if, on the other hand, it be sarcomatous or epitheliomatous, the tumour is a papillary sarcoma, or a papillary epithelioma. So common is the papillation of the surface of all bladder tumours that this feature alone is of no importance in deciding the true nature of the growth. In connexion with this great tendency of the bladder to form papillæ, it is interesting to recollect its origin from the allantois, and to bear in mind that it is from the latter that the vascular portion of the chorionic villi are produced, for we have in the chorion the most typical papilloma, occurring as a physiological structure. So great is the tendency for bloodvessels of the submucosa to shoot out in a papillated form, that in sarcomata springing from this situation it is sometimes possible to detect a strikingly arborescent arrangement of the bloodvessels in their substance. The term polypus has often been applied to bladder tumours; indeed, Hutchinson proposed to call these villous tumours villous polypi, from the fact that the majority were pediculated, but a title based on such a feature would be very unsatisfactory, as the polypoid condition has no pathological significance, and all forms of bladder tumour may take on the polypoid formation. True, cystic growths in the bladder are, so far as we are aware, unknown; there is, however, a reference to a cyst of false membrane which was removed by Liston by suprapubic cystotomy, the cyst being the shape of the interior of the bladder.[3] The following list shows eight histological varieties of tumours which have been recognised as having their origin in the human bladder:—(1) Fibroma, (2) myxoma, (3) sarcoma, (4) myoma, (5) enchondroma, (6) epithelioma, (7) carcinoma, (8) papilloma.

Villous growths (papillomata) rarely exceed the size of a hen's egg. They may either be sessile or pediculated, round or ovoid. They have a soft consistence and a rosy, sometimes yellowish, appearance. Immersed in water, they swell and send out floating filaments and branches resembling a sea anemone. The branches sometimes exceed two inches in length. The most common locality in the bladder for these growths is within the trigone, and the vicinity of the urinary orifices their most favoured site—situations which render them very liable to become impediments to the flow of urine, and, by causing repeated attacks of obstruction, lead eventually to hypertrophy of the muscular coat of the bladder, dilatation of the ureters, and ultimately hydronephrosis. The epithelial covering of villous growths being thin, friable, and easily removed, and, being subjected

[1] Soc. Anat., 1861, p. 191.

[2] Virchow (die Krankhaften Geschwulste, Bd. 3, Berlin, 1865) does not recognise papillomata as a special kind of tumour, and contends that they are nothing but papillary fibromata, or outgrowths of the connective tissue. Rindfleisch (Pathological Histology: English transl., vol. 1., page 454, London, 1872), however, states that in the villous growths of mucous membranes the loops formed by the ascending and descending capillary vessels are *mostly* covered by one or several layers of epithelium without *any* connective tissue intervening.

[3] Medical Times and Gazette, August 2nd, 1862.

to the varying conditions of the bladder, it can readily be conceived how the contained vascular loops become exposed and injured, and, in consequence, give rise to hæmorrhages of varying intensity—hæmorrhages which, in the past, have almost invariably cost the patients their lives in from three to four years. The urine of patients suffering from villous growths within the bladder is neither influenced in quantity nor specific gravity, but almost invariably contains blood either constantly or at infrequent intervals. As may be supposed, the presence and quantity of blood are governed by certain circumstances, amongst which may be mentioned violent exercise, when the blood will be fairly equally distributed in the urine, and give it a uniform red colour, straining at stool, and at the termination of micturition, in which case the urine may be free from blood at the commencement of making water, but deeply tinged at the conclusion. The introduction of catheters is also frequently followed by hæmaturia.

The principal aids to the diagnosis of tumours within the bladder are as follows:—1. The detection in the voided urine of minute tufts which from time to time become accidentally detached from the parent growth. These tufts can be microscopically identified as branched villi, with central capillary loops covered with one or several layers of epithelium. 2. Catheterisation with the intention of entangling in the eye of the instrument fragments of the villous growth. 3. Exploring the surface of the bladder by means of a sound, in order to detect any irregularity in the surface of the vesical wall. 4. Bimanual palpation. 5. Digital exploration of the bladder.

The urine at times contains coagula, and occasionally detached fragments of the villous branches may be recognised. The latter, when detected and examined under the microscope, afford the most conclusive and satisfactory evidence of the nature of the case. In Mr. Berkeley Hill's case, published in the University College Hospital Reports for 1880, it is stated that bits of tissue, showing the nested arrangement of epithelium characteristic of epithelioma, were detected in the urine; any observation of this nature of course renders the diagnosis of epithelioma a certainty. Beyond the information afforded by an examination of the urine additional knowledge may be gained by the use of a full-sized metal catheter, provided with large eyes. The bladder should be examined when fully distended with urine, and the growth freely floating in its contents—the branches follow the flow of the urine, and becoming entangled in the openings into the catheter, are torn off during the removal of the instrument.

It is necessary to offer a word of caution against the indiscriminate, or rough use of catheters for diagnostic purposes in suspected cases of villous growths. In the first place, septic contagion may be introduced into the bladder and cause troublesome catarrh. Fatal hæmorrhages have followed the use of the catheter in such cases. Examples are mentioned by Cruveilhier, Leudet,[4] Tufnell,[5] Rendu,[6] Langlebert,[7] and Guyon.[8]

In addition to the value of the catheter in procuring fragments of the growth for purposes of diagnoses, further knowledge may be gained by its use. A sensation is conveyed by the catheter as though the end was moving through a mass of floating hair, or in a spongy substance, or on a velvety or woolly surface.[9]

The examination of the bladder by bimanual palpation is frequently of great value as a diagnostic agent. Simon[10] recommends in female subjects the introduction of the index finger into the previously dilated urethra and the middle finger into the vagina, whilst the other hand depresses the vertex of the bladder downwards towards the index finger, by this means a complete exploration of the bladder can be made in the majority of cases. Volkmann recommends that in male subjects, when they are under the influence of chloroform, one finger of the left hand in children and two in adults should be introduced as far as possible into the rectum, whilst an assistant presses both his hands flat above the symphysis in the hypogastric region, forcing the bladder towards the surgeon's fingers. By this means, in lean persons, with empty bladders, and without enlarged prostate, the vertex of the bladder may be fully examined. When the surgeon detects any pathological change, he glides his right hand below those of his assistant, and by this means he transfers the morbid part of the bladder entirely between his own hands, which permits a more trustworthy opinion to be formed.

Digital exploration of the bladder is the final and most certain method of arriving at the diagnosis; in the female there are no difficulties in the way, for the short and easily dilatable urethra offers but little impediment to a thorough exploration of the interior of the bladder with the forefinger.

It is with the idea, as Mr. Lund stated at the meeting of the Medico-Chirurgical Society, of approximating the anatomical condition of the male to that found in the female, that the operation of opening the membranous urethra has been advocated in these cases, as by this means the same facility in exploration of the bladder is obtained for the male as that which exists in the female. Certainly in a number of cases this is perfectly true, but it is also a fact that in others it is by no means so, for there are at least two anatomical conditions that facilitate the digital exploration of the bladder in the female—they are the absence of the prostate, with its frequency of enlargement, and the wider pelvic outlet. It has been stated by Sir H. Thompson that digital exploration of the male bladder through an opening in the membranous portion of the urethra is always possible if the patient be thoroughly anæsthetised and the bladder be emptied. This is a statement which we consider requires qualification, for there are at least three conditions which may prevent such a complete exploration; they are:—1. Stoutness of the patient, by which the depth of the perineum is much increased. 2. Enlargement of the prostate, by which the bladder is pushed further from the surface. 3. Considerable narrowing of the pelvic outlet, which prevents the hand being well pushed into the perineum. Case 3 is an instance of the mere corpulence of the patient preventing an exploration of the bladder; but when, in addition to stoutness of the patient, the prostate is also enlarged as in Case 9, a thorough examination is quite impossible. In this case the patient was deeply under the influence of chloroform, and the suprapubic pressure rigorously employed, yet three surgeons, with forefingers of quite the average length, pronounced exploration of the bladder to be absolutely an impossibility.

In the absence of these conditions, however, a complete exploration of the interior of the bladder can unquestionably be made by the tip of the forefinger introduced through an opening from the perineum into the membranous portion of the urethra.

(To be continued.)

[4] Bull. Soc. Anat., 1852, p. 301.
[5] Dub. Quart. Jour. Med., 1865, v. 59, p. 470.
[6] Bull. Soc. Anat., 1869, p. 543.
[7] Ibid., 1876, p. 256.
[8] Du Cancer de la Vessie, par Ch. Féré. Paris, 1881, p. 74.
[9] Féré, l.c., pp. 80 and 122.
[10] Volkmann, Sammlung Klinischer Vorträge, N. 88.

A CONTRIBUTION TO THE SUBJECT OF CEREBRAL LOCALISATION.

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(Continued from page 536.)

CASE 3. *Softening of the posterior part of the inferior frontal and of the lower part of the ascending frontal convolutions on both sides, accompanied by twitching and subsequent paralysis of the face, and by aphasia.*—J. S——, aged twenty-eight, an unmarried waiter, was admitted into St. Thomas's Hospital, under the care of Dr. Bristowe, on June 18th, 1878. The patient's father said that he did not think his son had ever had syphilis, and that, though he had drunk hard, he had never had delirium tremens. During the previous month he had completely lost his appetite; he would not feed himself, and his friends had had great difficulty in inducing him to take food. For fourteen days he had suffered from attacks of twitching of the right side of the face, which had increased in frequency, until at the time of admission he was said to have them every fifteen or twenty minutes. Seven days before his appearance at the hospital he was noticed to speak thickly, and for the last four days he had not uttered a word. He had had no loss of power in his limbs. When I saw him first, on applying for admission, he looked rather stupid, and kept his mouth a little open, so that saliva dropped at times from it. He could not speak, but he

understood what was said to him; and when he showed his tongue, it was protruded far to the right. When asked to write his name, he attempted to do so, but the letters were illegible and all of one character. His father said that when well he could write a little, though probably not a continuous letter. The pupils were equal. While I watched him he had in the space of five or ten minutes two fits. The right side of the mouth began to twitch violently, and was dragged over to the right. There was no change in the pupils, nor did the patient completely lose consciousness, for he remained sitting upright; but he did not appear to understand when spoken to until one or two minutes after the fit was over. Finally, the lips became a little blue, saliva collected in his mouth, and the twitchings ceased. No disease of the internal organs could be detected, and his urine contained no albumen. The temperature was 99·2° F. 8 P.M.: I Now found him having fits every few minutes, and he would not show his tongue. The fits began with twitching of the right side of the mouth, then the face was drawn in tonic spasm towards that side, the right orbicularis twitched, and the eyes presented slight oscillations. The left sterno-mastoid appeared to be contracted, and the head was turned towards the right. Then the lips becoming slightly blue and the pupils remaining unchanged, the contracted muscles began to relax, clonic spasms of the muscles of the face and the deep muscles of the neck on the right set in, frothy saliva appeared at the mouth, and the fit ceased. The platysma appeared throughout to be free from convulsion. The temperature at 6.30 P M. was 100·8° F.—June 19th: Was having two or three fits every ten minutes, and had not spoken. In some of the fits, which were of a similar character to those of the previous day, the muscles were very violently convulsed. He now wrote a fair attempt at his name, but was not very intelligent, though he understood what was said to him. The pupils were equal and rather large; the tongue was protruded markedly to the right, and during the fits it was seen to twitch within the mouth. The right side of the face now twitched in the intervals between the fits. The evacuations were passed in bed. Temperature 100·4°. F. — 20th: Having about fourteen fits in the hour, and they went on even during sleep, each lasting about one minute; everything passed in bed; fluid nourishment taken well, but some difficulty in swallowing; tongue still protruded to the right.—21st: Fits less numerous during the day; both arms and both legs convulsed; constant twitching of the right side of the face; still speechless. Mr. Nettleship examined the fundus of the eyes, and said that there was no alteration in the vascularity during the fits; that the optic discs were not healthy, the yellow-spot side of each being very pale, and clearly marked off from the rest, the remainder of the disc being hazy, and the border a little swollen.—22nd: Fits less numerous; slept well.—28th: It was noticed that when the face was not twitching, which was rarely the case, the right side was partially paralysed, the lines on the left being much more distinct than those on the right.—24th: At 11.15 P.M. last night the other persons in the ward heard moaning, and the patient was found in a fit of unusual severity. The left arm and leg were violently convulsed, the mouth drawn strongly to the right side, while foam ran out at the left; the right side was said not to have been convulsed at all. This was succeeded by very loud stertorous breathing. Soon another and similar fit occurred, in which the left side was noticed to be very rigid. Four occurred in one hour. The temperature during the fits was 99 3° F., and the patient remained very drowsy after them.—On the morning of the 24th, when I saw him, he was lying asleep on his back, and there was no twitching of his face. Slight paralysis of the muscles at the right angle of the mouth was observed, the left being drawn down, the right more rounded and blown out during expiration. He had a very slight attack of twitching while I was present. Pulse 100, regular. Evening: Had three or four bad fits during the day. Sometimes all the limbs were rigid, but not convulsed, the face only jerking. At other times the left arm and leg, or the left arm and right leg, were convulsed.—25th: I saw the patient in a bad fit, which, like the more recent ones, lasted about two minutes. All the limbs were rigidly extended and slightly convulsed while in that condition. The mouth was drawn in spasmodic jerks to the left, and after the fit, during deep-drawn stertorous breathing, the left side was blown open. The fits getting more violent but less numerous, and the twitchings in the intervals less. Temperature 100·8° F. Evening: Present at another fit, which was very violent. In it the lower limbs were rigidly extended and convulsed. Both arms were semi-flexed at the elbows and rigid, and the face spasmodically drawn to the left. The head was turned to the left, and the eyes downwards and to the left. No evident paralysis remained after the fit. The optic discs were much as before described, but were evidently hazy and ill-defined at their circumference. — 26th: Very much brighter; more conscious; taking food better. About four moderately severe fits in the last twelve hours.—Evening: Temperature for the first time high, 103·8° F.; more sensible.—27th: Had no recurrence of the fits, but got gradually cold and cyanotic, and died at 4.40 A.M.

The post-mortem examination revealed no serious disease of any organ except the brain, and the pathological changes there were very localised. In the left hemisphere it was found that there was quite superficial red softening, involving the posterior half of the inferior frontal convolution, and extending for a very short distance into the ascending frontal. Apart from this there were no evidences of disease on the left side. On the right hemisphere there was a symmetrically placed but less extensive patch of red softening, involving the posterior part of the lower frontal convolution and the base of the ascending frontal. The rest of the right hemisphere was natural. There was no disease of the membranes on either side, and nothing to account for the cerebral softening.

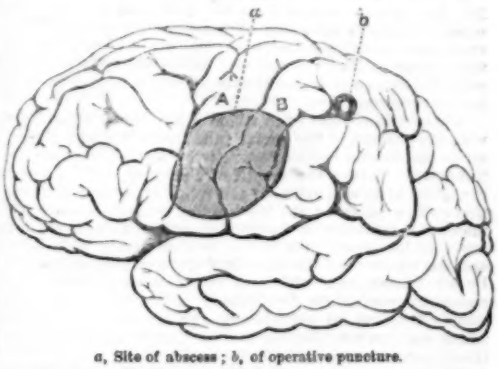
Remarks.—The order of sequence of the principal phenomena in this case was as follows:—1. Attacks of twitching of the muscles on the right side of the face. 2. Thickness of speech. 3. Aphasia, agraphia, and paralysis of the right side of the tongue. 4. Twitching of the right side of the face constant. 5. Fits of more general convulsions. 6. Twitching of the left side of the face and general convulsions. The area of softening found symmetrically in the two hemispheres corresponded closely in its posterior part with Ferrier's centres for the mouth and tongue; and on the left side it involved Broca's convolution. The local convulsions followed by local paralysis, and subsequently giving rise to more general epileptiform seizures, are typical of cortical lesions. The importance of observing the part which is first involved in an epileptic fit, since it points, as Hughlings Jackson has insisted, to the locality of the lesion, is well illustrated in this case. The lesion in the left hemisphere was no doubt that which gave rise to the earliest and most striking symptoms. Subsequently disease of the corresponding part of the right hemisphere occurred, and produced similar convulsive and paralytic phenomena on the opposite side.

CASE 4. *Abscess of the brain, the result of injury, producing convulsions and paralysis of the right arm and right side of the face, with aphasia.*—M. A. H——, aged forty-four, was admitted into St. Thomas's Hospital, under the care of Mr. Mason, on Dec. 26th, 1882. On the afternoon of that day she came to the casualty department, saying that she had been struck on the head with a large brass bell. A wound was found over the left parietal protuberance, which bled profusely, and at the bottom of which there was a depressed fracture of the skull. The wound was about an inch in length, and extended obliquely forwards and towards the right. The bone was bared and white, and a probe was distinctly felt to pass over a ridge, behind which there was a depression. The temperature was 99·2° F. From the date of admission until Jan. 3rd, 1883, there were no bad symptoms, though the temperature was always above the normal, and sometimes rose as high as 103° F. On Jan. 3rd the patient was drowsy, and had a temperature of 104·8° F., but still seemed fairly well. The pupils were equal and acting well; there was no headache or vomiting, or any evidence of paralysis; the tongue was clean, bowels confined, pulse 104, and the wound gave exit to a healthy discharge. From Jan. 3rd to Jan. 22nd she improved uninterruptedly. The temperature gradually went down to the standard of health, the wound continued to heal, the patient ate and slept well, and finally left her bed in a very satisfactory condition. On the 22nd, however, a sudden change for the worse set in. The patient had sixteen epileptic fits, in which she was unconscious, and bit her tongue, and had rigidity, mainly affecting the right side of the body. Her speech, too, for some time was unintelligible. Still the temperature did not rise, the patient quite recovered her former condition, and the fits did not continue. On the evening of Feb. 1st she had another attack lasting five minutes, during which there were rigidity, mainly of the muscles of the right side, loss of speech, stridulous breathing, and involuntary passing of urine, and she bit her tongue.

In about an hour another fit occurred, which was similar to but more severe than the preceding, and lasted twenty minutes. She was very drowsy after these attacks, and on the 3rd it was noted that she was partially paralysed on the right side, the paralysis affecting the muscles of the tongue and face and the right arm. The latter was not only paralysed but somewhat rigid, the tongue was protruded to the right, and the mouth was drawn to the right (?) The pupils reacted to light and to accommodation. On the 5th it was noted that she had some difficulty in swallowing, and that "people were unable to understand what she said." The patient remained very drowsy and the temperature rose, reaching 102° F. on the 7th, when she was partly unconscious. It was observed at this time that pressure on the scar of the healed wound produced movements of the face and arm on the right side. Mr. Mason now trephined at the seat of the injury, and removed a circular piece of bone about three-quarters of an inch in diameter. No evidence was afforded during the operation of any depression of the internal table of the skull; but when the piece of bone was removed with the elevator a teaspoonful of thick yellow pus welled from the posterior part of the wound. The patient, however, did not improve; the temperature still continued higher than normal, and the woman remained in a semi-conscious state, unable to protrude her tongue or move her right arm, and presenting some loss of power on the right side of her face, with aphasia. On the 9th it was noticed too that she used her right leg less than her left, and this paralysis increased somewhat subsequently. Double optic neuritis, more advanced in the left than in the right eye, was observed on the 12th, and the temperature was slightly above the normal. On the 13th Mr. Mason punctured the dura mater at the place where he had previously trephined, and about a teaspoonful of pus exuded. The patient died on the 14th without any marked alteration in her condition. During the last week of her life it was noticed that the temperature in the axilla on the paralysed side was nearly always from 1° to 2° F. higher than in the axilla of the opposite side. The aphasia was almost complete, all the patient could say being a very occasional "Yes," and "Oh, dear!"

Post-mortem examination.—Body well nourished; lungs healthy; heart slightly hypertrophied but otherwise normal; liver and spleen healthy. The capsule of the kidneys was difficult to tear off, the surface of the organs slightly granular, and the cortex somewhat narrow. On the left side of the skull in the situation of the parietal eminence was found the circular orifice produced by trephining; apart from this there was no fracture or other injury of bone to be found. From the surface of the dura mater, exposed by the operation, rose a circular mass of granulations, and the membrane itself in the neighbourhood was slightly adherent to the skull. On removal of the skull-cap and dura mater the surface of the brain appeared dry and the convolutions much flattened out. On the left the surface of the parietal and frontal lobes was flatter than on the right. The dura mater was adherent to the brain around the trephining orifice, and from the brain immediately below the latter oozed dark-red blood from a ragged cut, due no doubt to the introduction of a knife before death. The pia mater over a very small area was slightly inflamed. The whole of the left parietal lobe was felt by the finger to be softer than the rest of the brain, and this condition was most marked in the region of the superior parietal lobule. The dura mater and pia mater were firmly adherent to the surface of the brain over the lower part of both the ascending convolutions, leaving free, however, a small area bordering the fissure of Sylvius. Indeed, the membranes here clung so firmly to the cortex that they could not be removed without tearing it. The membranes at the base were slightly opaque, and the commissures were softened, but otherwise there were no signs of inflammation. The ventricles were not distended with fluid. On making sections of the right hemisphere, it was found to be healthy. The border of the left temporo-sphenoidal lobe adjoining the left crus cerebri was softened and dotted with punctiform hæmorrhages over a very small area, a lesion which probably owed its origin to contrecoup. After hardening in alcohol, sections were made of the left hemisphere, and it was found that the whole parietal lobe was softened and of a white colour, with varying tints of yellow. The substance of the superior parietal lobule immediately below the trephining orifice was occupied by a dark-red recent blood-clot, which was as large as a hazel-nut. An abscess cavity, containing opaque, dirty-coloured fluid and a small blood-clot, was found occupying the lower part of the two ascending convolutions. It was about as big as a walnut, and had granular-looking walls, but no distinct membrane lined it. In a downward direction it extended nearly to the fissure of Sylvius, but did not quite reach it. Deeply it extended into the white matter of the hemisphere, but left the central ganglia intact. Upwards it extended nearly half way to the superior longitudinal fissure, while externally it left but a very thin layer of brain-substance between its cavity and the membranes. Below and anteriorly it involved the junction of the inferior and ascending frontal convolutions, and there came exceedingly near the surface. The place where the membranes have been described as so closely adherent to the brain was immediately over the abscess cavity.

FIG. 3.



a, Site of abscess; *b*, of operative puncture.

Remarks.—The sequence of events in this very interesting case appears to have been probably as follows: After the blow on Dec. 26th inflammation was set up in the white matter of the left hemisphere, beneath the lower part of the two central convolutions. An abscess formed and gradually went on increasing in size, but, as is so frequently the case, did not produce any marked symptoms. As, however, it came nearer the surface, it produced inflammatory changes in the cortical grey matter, which resulted, on January 22nd, in epileptic fits affecting the opposite side of the body. The site of the lesion was even then indicated by the special way in which speech was affected. After a convulsive period there set in on Feb. 1st a paralytic stage, in which the tongue, face, and arm on the right side lost power, and there was aphasia. These symptoms together indicated a lesion of the lower part of the ascending convolutions, and of the posterior part of the inferior frontal on the left side. On February 9th slight softening had occurred in the upper part of the ascending convolutions, resulting in some weakness of the right leg. From our present knowledge of cerebral localisation, the clinical phenomena were in fact precisely what we should have expected them to be. It is quite impossible to say why the injury produced an abscess in that particular situation, or why pressure on the scar produced movements in the right arm and right side of the face, although undepressed bone intervened between it and the surface of the brain.

(To be concluded.)

ON COLECTOMY.

BY C. A. BALLANCE, M.S. LOND., F.R.C.S. ENG.

THERE are some points in Mr. Lammiman's case of colectomy, published in THE LANCET of August 4th, upon which I have a few remarks to offer. I wish also to add brief notes upon the operation of colectomy in general.

1. Mr. Lammiman states that in his case the stricture was scirrhus. I should be glad to hear whether this conclusion was the result of microscopical examination. The hard annular strictures occurring in the upper part of the rectum, sigmoid flexure, or lower end of the descending colon, are usually identical, I believe, with the new growth known as columnar epithelioma. It is not possible to distinguish

scirrhus from columnar epithelioma by the naked eye appearance alone. In these cases the new formation is of very slow growth, and before complete obstruction supervenes there is a period during which symptoms referable to the intestinal canal present themselves, and the importance of which at the time they occur is not often recognised. It is interesting to learn that Mr. Lammiman's patient exhibited symptoms of intestinal derangement previous to the occurrence of her fatal illness.

2. I fail to appreciate the advantage of administering, as Mr. Lammiman says that he did, a "competent purgative" when symptoms of acute obstruction are present. Such treatment would appear to me likely not only to increase the present peril of the patient, but would interfere greatly with the chance of recovery if operative measures were subsequently undertaken.

3. There is a point upon which I can throw some light—viz., the passage of the rectal tube for such a long distance, while the stricture was comparatively a small way only from the anus. During the month of February, 1881, I assisted Mr. Pitts at an operation for the relief of intestinal obstruction. The cause of the obstruction was discovered, after making a small median incision of sufficient size to allow the hand to be passed into the abdominal cavity, to be a hard annular stricture of the sigmoid flexure exactly as described by Mr. Lammiman. Previous to the operation I had easily passed the rectal tube for eighteen inches, and at the operation, simply as an experiment, the instrument was used again, and, on reaching the stricture, was seen to bend upon itself, and to return the way it came.

Mr. Pitts' case was published in the St. Thomas's Hospital Reports, and he was the first, I think, to suggest the operation of colectomy in such cases. Mr. Pitts also pointed out the ease with which colotomy can be performed after gastrotomy, by cutting upon the finger placed within the abdominal cavity, and, further, that in this way a colotomy incision through the abdominal parietes an inch in length is quite sufficient, and that both the colotomy and gastrotomy wound can be kept completely aseptic until union between the deeper tissues be accomplished.

That colectomy will in the future in a great measure take the place which in the past has been held by colotomy I have no doubt; but I am not so well assured that in this country we shall ever attempt the cure of stricture or gangrene, artificial anus or fæcal fistula, by complete resection of the gut and immediate union of the divided ends with such confidence as continental surgeons. It would appear that the English as a nation are not constitutionally so well fitted to bear operations as the people of some other countries. Last winter I read before the Medical Society of London a case of Vesico-intestinal Fistula following Dysentery, which I had treated by colotomy. I ventured to suggest colectomy for the treatment of like cases when the fistula was not due to malignant disease, and when there was good reason to suppose that the intestine was implicated somewhere below the upper part of the descending colon. By this method the contents of the bowel would escape entirely by the artificial opening, and thus the fistula would have rest from the passage of fæces, and might ultimately close. When there is any uncertainty as to the cause of the trouble in patients with obstruction of the bowels, and therefore the possibility that colotomy would fail to afford relief, I think it infinitely preferable to make a small incision in the median line so as to explore the abdominal cavity. With thorough antiseptic precautions the danger of such a proceeding is reduced to a minimum. Not only is there no disadvantage arising from such a proceeding; but, on the contrary, I should look upon it as the pathway of safety. If such a case were to occur to me as that in which Mr. Lammiman performed colectomy in the loin, and the patient would submit to the operation at a period when a satisfactory issue might be anticipated, I should certainly choose the abdominal incision, bring the stricture out through the wound, ligature the bowel on each side of it, excise the stricture with every care to keep the parts aseptic, and then attach the proximal portion of the gut to the margins of a small incision made by cutting down upon the finger placed within the abdominal cavity through the iliac or lumbar regions of the abdominal parietes. Colotomy, again, is often performed on patients suffering from cancer of the rectum to remove obstruction, or for the relief of the pain produced by the passage of fæces over an ulcerated surface. It is well known that a portion of the contents of the bowel still passes by the natural channel; it will therefore be obvious that the interruption of the continuity of the gut by ligature or division below the artificial opening would be a great improvement upon the old operation. Colotomy is without doubt a very imperfect method of practice, but it must still find a place in surgical procedure. The hope, however, may be expressed that the day is not far distant when colectomy, or perhaps complete resection of the intestine, will supersede it in many instances.

Harley-street, W.

NOTES OF A CASE OF

UTERINE FIBROID REMOVED BY ABDOMINAL SECTION.

PEDICLE TREATED WITH SILK; HÆMORRHAGE IN TWELVE HOURS; REOPENING OF ABDOMEN, AND APPLICATION OF KŒBERLÉ'S SERRE-NŒUD; RECOVERY.

By J. CRAWFORD RENTON, M.D. EDIN.,
SURGEON TO THE DISPENSARY OF THE WESTERN INFIRMARY; SURGEON TO THE EYE INFIRMARY, GLASGOW.

MRS. A——, aged thirty-five, married, no family, was sent to me in October, 1882, by Dr. Allan. She complained of a swelling in her abdomen, which she stated had existed for ten years: recently it had grown somewhat, and had given her pain and inconvenience, so that she was anxious to have it removed if possible. On Nov. 10th she was admitted to the Training Home for Nurses. On examination per hypogastrium, a round doughy tumour was found, movable, with obscure fluctuation; measurement round umbilicus thirty-two inches. Per vaginam: The uterus is high up in the pelvis, but movable, and seems to move along with the tumour; probe passes easily. Per rectum: The tumour is felt passing into Douglas' space; menstruation regular. Had not had attacks of menorrhagia. Dr. Allan and Dr. Beatson examined the patient with me, and we were of opinion that we had probably to deal with a uterine outgrowth closely attached to the uterus. The woman was otherwise in good health and with no history of serious peritoneal pains, and as the mass gave rise to great discomfort we recommended her to have it removed.

On Nov. 18th, assisted by Drs. Allan, Beatson, and Nairn, I performed the following operation. An abdominal incision, four inches in length in the median line, was made, and the surface of the tumour exposed. No adhesions were found except one or two at the right side; a trocar was passed into the growth, and as only a little blood escaped, it was evident that we had to deal with a solid tumour. The abdominal opening was enlarged two inches upwards and downwards, and the tumour was found growing from the uterus and attached by a distinct pedicle, which was six inches in circumference and two and a half in thickness. The tumour was turned out and a Foulis's band, fitted with hooks instead of the ordinary catch, was applied to the pedicle. This controlled the large vessels in it; and on Dr. Beatson's suggestion I passed a skewer through the pedicle above the band and then cut off the tumour with the ovaries attached. I now secured the pedicle with four strong Keith's silk ligatures below the band, and having done so I removed it and cut off with the cautery an inch and a half of the pedicle, which was now dropped into the abdominal cavity, the wound closed with silk sutures, dressings applied, and the patient placed in bed. The operation lasted an hour and twenty minutes from the commencement of chloroform inhalation to the time the patient was in bed, the length of time being accounted for by the fact that cutting through the pedicle with the cautery was very tedious. Evening: The patient is weak. Pulse 132; temperature 99°. — 19th, 10.30 A.M.: The patient collapsed; pulse hardly perceptible; pain in the abdomen, some distension. Hæmorrhage had evidently occurred; and, with the approval of Drs. Allan and Beatson, ether was administered both by inhalation and subcutaneously, and I opened the wound. I found that the pedicle was bleeding freely, shrinking having taken place and the ligatures ceasing to act. The pedicle was drawn up, and Kœberlé's serre-nœud, which I had obtained through the kindness of Dr. H. Cameron, was applied firmly round it and left fixed in the lower angle of the wound, the clots were cleared out, and the wound again closed. The form of clamp used was most convenient, as it can be gradually tightened as the pedicle shrinks. Stimulants were freely given and ether injected subcutaneously; but the pulse con-

tinued frequent and weak. The patient took stimulants and soup, and subcutaneous injections of ether were continued, as they always appeared to improve the pulse.—20th, 11 A.M.: Pulse continues to be very rapid, and at times barely perceptible, patient weak and collapsed looking; it was therefore quite evident that unless some improvement took place soon our patient would die. I accordingly determined to perform transfusion unless there was some improvement by two o'clock. At Dr. Allan's suggestion we gave her warm milk in half teacupfuls every half hour, and this she retained, so that by 2 P.M. her pulse was perceptible and not so rapid. This seemed to be the turning-point, for notwithstanding certain alarming collapses she gradually improved, and was soon able to take any form of simple nourishment. The wound healed at once, and the clamp separated on the 28th day, the aperture closing a few days afterwards, and the patient was dismissed well on January 6th, 1883.

Remarks.—The result of the operation fully justifies the procedure adopted; at the same time I feel that but for the splendid nursing she received in the training home, she could not have survived the double operation. It may be argued that there was no urgent bleeding to call for the tumour being removed, but the discomfort and mental annoyance it caused, along with the acknowledged safety of such operations, were sufficient for agreeing to perform it. Whether removal of the ovaries would have been sufficient I cannot say; but in future cases I shall be inclined to try; especially if the patient is weakened by loss of blood. As regards the tumour, it weighed five pounds, and was a distinct outgrowth, and on section presented a very definite fibroid appearance. Dr. Newman examined the specimen, and found that it presented all the characteristics of a uterine myoma.

Glasgow.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

TROPICAL ABSCESS OF LIVER; FREE INCISION; ABSENCE OF PERITONEAL ADHESION; RECOVERY; REMARKS.

(Under the care of Dr. CARRINGTON and Mr. JOHNSON-SMITH.)

FOR the following notes we are indebted to Mr. W. T. Hodge, clinical assistant.

H. H——, boatswain, aged thirty-two, was admitted on Aug. 9th, 1883. The patient had been frequently in tropical climates. He contracted dysentery three years previously in Calcutta, but got quite well of this. Two months before admission he had an attack of severe pain in the "pit of the stomach." This was continuous and aching in character, and went off after twenty-four hours. The present illness commenced on Aug. 4th, 1883, when the patient was seized with severe pain in the epigastrium, which was followed shortly afterwards by pains between the shoulders and in the lumbar region. He had suffered in this way up to his admission. He had no rigors, but constant sweating, great thirst, and loss of appetite. The bowels acted about six times in the twenty-four hours, the evacuations being rather light in colour.

Condition on admission:—The patient lay upon his back, with anxious expression and somewhat restless. The skin was hot and dry; the tongue was thickly coated with yellow fur. There was dulness on percussion in the right hypochondriac and epigastric regions, extending as far as two inches below the free margin of the ribs, and reaching across the median line as far as the eighth costal cartilage. The upper limit could not be defined on account of the excessive tenderness. Pressure over this area caused great pain, more especially at a point three inches above the umbilicus, a little to the right of the middle line. Neither pain nor gurgling was elicited by pressure on the right iliac fossa. Respiration 30, thoracic, shallow, with a catch at the end of inspiration; breath-sounds normal in front and axillary regions; heart normal; pulse 98; urine albuminous; temperature 104·8°.

On August 10th there was perceptible bulging at the part that was so markedly tender on the previous day. Poultices were applied over the right hypocondriac region, with the result of much diminishing the pain and tenderness, so that the swelling could on Aug. 11th be freely touched and handled, whilst formerly the slightest touch made him wince. On the 12th an exploratory puncture was made at a point two and a half inches from the median line, and half an inch below the margin of the ribs, the needle being passed upwards and backwards. When three inches had been inserted pus was discovered; it was perfectly sweet.—Aug. 10th: Morning temperature, 101·8°; evening, 101°.—11th: Morning temperature, 99°; evening, 100·4°.—13th: Morning temperature, 98·4°, before the operation; evening, 101·8°. On the 13th the patient was placed under the influence of ether, and Mr. Johnson-Smith introduced an exploring needle just below the right ribs, and again drew off pus; under the carbolic spray he then made a vertical incision two inches long, passing through this spot. A director was passed into the abscess, and a free incision made into the cavity by a blunt-pointed bistoury passed along it. About a pint of pus and broken-down liver substance, mixed with blood, escaped. The finger introduced through the incision passed through about an inch of liver into a large abscess sac, and it could also be freely passed into the peritoneal cavity, for no adhesions existed. A large drainage-tube was introduced. The abdominal wall was pressed down upon the liver by two large sponges bandaged on, and the wound was dressed with antiseptic precautions. On the 14th the patient felt quite comfortable. The wound was dressed, and there was a large quantity of discharge upon the dressings. This was perfectly sweet. There was no oozing of pus from the wound. The cavity was not washed out, for fear of destroying newly formed adhesions. Morning temperature, 98·4°; evening, 98·2°.—15th: He slept well last night, and this morning was in no pain. The wound was dressed to-day, and the abscess cavity syringed out. It was looking very healthy. Morning temperature, 98°; evening, 99°.—16th: Patient has been going on well. His appetite has returned. Fish diet ordered. Morning temperature, 98·2°; evening, 98·8°; pulse, 92.—17th: His wound was dressed to-day. There was a large quantity of perfectly sweet discharge. The drainage-tube was shortened and the sponges discontinued. Morning temperature, 98·4°; evening, 98·4°.—18th: Dressed. A large quantity of sweet discharge. Morning temperature, 98°; evening, 98·4°.—19th: Dressed. Condition unchanged. Morning temperature, 98°; evening, 98·4°.—20th: Dressed. The discharge has slightly diminished. Morning temperature, 98°; evening, 98·4°.—21st: Dressed. Discharge quite sweet. The drainage-tube is more and more extruded from the wound each day, and cannot be made to pass any further into the cavity. It was shortened to-day.—22nd: Dressed. Morning temperature, 98°; evening, 98·4°.—23rd: Dressed. Discharge diminished in amount. Morning temperature, 98°; evening, 98°.—24th: Dressed. The discharge does not now amount to more than one or two ounces. The wound is looking very well. Morning temperature, 98°; evening, 98°.—26th: Dressed. There was very little discharge. The drainage-tube was shortened by about an inch. No pus came out on syringing the cavity. Morning temperature, 98·4°; evening, 98°.—28th: Dressed. About three-quarters of an inch of the drainage-tube was cut off. Morning temperature, 98°.—29th: The patient was allowed to get up.—30th. Dressed. Discharge less.

Sept. 2nd: Dressed. Spray dispensed with.—4th: Dressed. Drainage-tube shortened by half an inch. No discharge on syringing out, and very little in dressings.

The patient now gets up every day, and walks about without feeling any pain in his side. The wound is now simply a sinus, which is healing up steadily from the bottom.

Remarks by Dr. CARRINGTON.—The case seems worthy of record, both from its rapidly favourable termination, and from the fact that, in spite of the entire absence of adhesions between the liver and abdominal walls, no ill-effects ensued from the free incision of the abscess. It is the custom now at the Seamen's Hospital to freely excise all hepatic abscesses under the carbolic spray, and it is rare to find adhesions shutting off the peritoneal cavity absent.

Probably the freedom of the incisions, the large drainage-tube, the careful bandaging, and the antiseptic precautions, had much to do with the favourable issue of this case.

GENERAL HOSPITAL, BIRMINGHAM.

TWO CASES OF MALIGNANT DISEASE OF THE ŒSOPHAGUS: GASTROSTOMY IN ONE CASE, INCOMPLETE GASTROSTOMY IN THE OTHER; DEATH; NECROPSY; REMARKS.

FOR the following notes and remarks we are indebted to Mr. Gilbert Barling, M.B., F.R.C.S., resident surgical officer.

Malignant Disease of the Œsophagus; Gastrostomy; Death; Necropsy. (Under the care of Mr. Bartleet.)—Richard W——, aged forty-five, was admitted on May 9th, 1883, complaining of difficulty in swallowing his food. He stated that in the previous September he was almost choked in swallowing some meat, since which time he had had to wash his solid food down by drinking very frequently. For six weeks before admission he had not taken anything solid, and occasionally had swallowed fluids with difficulty, especially early in the morning. He had not vomited either blood or pus.

On examination it was found that the man could take milk in small quantities with but little discomfort, but that on attempting to swallow bread or minced meat he experienced much pain, referred to the top of the sternum; this was followed by eructations until the solid particles were vomited. A bougie passed twelve inches from the teeth before encountering any obstruction. There was no history of traumatism, nor evidence of syphilis or malignant disease to be found in the glands, &c. Loss of flesh was said to be considerable; the urine was of rather low specific gravity, contained a trace of albumen, and an occasional cast.

After consultation with his colleagues, Mr. Bartleet determined to perform gastrostomy, the patient expressing his willingness to undergo any operation, as he was so troubled with hunger. The first part of the operation was performed on May 18th (the method of Howse, as described by Mr. Durham in Holmes's "System of Surgery," being adopted). The abdomen having been opened in the linea semilunaris, a double ring of sutures was inserted to bring the stomach and parietal peritoneum in broad contact. Finding a handled needle inconvenient for passing the outer ring of sutures, Mr. Bartleet adopted the following plan: a piece of silk was threaded with a needle at each end; one needle was passed through the outer coats of the stomach, and then each needle thrust vertically through the abdominal wall an inch from the edge of the wound; six of these sutures were placed in position, and then each was tied over a piece of catheter. The wires first used to fix the stomach were left *in situ*. Lister's method of dressing was employed.

There was no vomiting after the operation. Nutrient enemata were administered every four hours and the lips moistened with water, no food being allowed by the mouth until the second day, when two teaspoonfuls of milk were given by the mouth every hour, and this quantity was gradually increased until May 29th (eleven days after the first operation), when the stomach was opened with a tenotome. Through the opening milk was cautiously introduced, and eventually eggs, broth, and minced meat, the enemata being stopped altogether on June 7th. For a time the patient gained ground, and was so well as to be able to take a little walking exercise, but at the end of June he suffered much discomfort from a profuse flow of gastric juice from the fistula, which could not be controlled, as he could not bear the pressure either of a flat pad or of a plug in the orifice, owing to the pain these caused in the abdomen. He now became much weaker and thinner, and about the middle of July took to his bed again, and died in the tenth week after operation.

The necropsy made by Mr. Payne revealed a stricture in the œsophagus two inches and a half from the stomach; it was nearly an inch in length, and admitted a body about the size of a No. 10 catheter. There was no ulceration, nor was there dilatation above the stricture. Microscopically it proved to be a carcinoma, which would be best defined as an atrophying scirrhus; there were no secondary deposits. A large gland at the bifurcation of the trachea was suspected of carcinomatous enlargement; but on microscopic examination no evidence was found of epithelial infection. The stomach was attached to the abdominal wall by very firm adhesions, which extended from the fistula for fully an inch in every direction. On opening the viscus, its mucous membrane appeared healthy and its cavity uncontracted, the fistula was found to open about an inch nearer to the pyloric than to the cardiac end, and about midway between the upper and lower borders. An abscess cavity capable of holding nearly a pint of pus was found adjacent to the upper border of the stomach; lying first of all between that viscus and the liver, then passing over the edge of the liver, it was limited below by that organ and the spleen, and above by the diaphragm. The left lung was firmly adherent by its base to the diaphragm. The kidneys were cirrhotic.

Malignant Disease of the Œsophagus; Uncompleted Gastrostomy. (Under the care of Mr. Jolly.)—J. L——, aged fifty-eight, was admitted on April 26th, 1883, complaining of inability to swallow his food. The patient first came under observation in October last, with enlarged glands below the pinna of the left ear, these were hard, irregular, and fixed; but there was then no complaint of dysphagia, and although it was suspected that the glands were enlarged secondarily to a malignant growth elsewhere, nothing could be discovered in such parts as were accessible to examination. About May the patient noticed that he had pain in swallowing his food, the pain being referred to the middle of the sternum. This trouble increased steadily, so that at the time of admission he dreaded taking any solid food, which at times stuck in the œsophagus and was vomited, but the vomit did not contain either blood or pus. There was evident rapid emaciation. The glands at the side of the neck were much larger than they were in October, and they displaced the trachea to the opposite side; the left axillary glands were also enlarged. Nothing abnormal was to be seen or felt in the air or food passages. Bougies were not passed.

Gastrostomy was decided upon, and the first stage of the operation was performed on May 15th, the abdomen being opened in the linea semilunaris and the stomach stitched to the abdominal wall by one ring of sutures, which transfixed only the outer coats of the stomach, and were then passed through the edge of the wound. Listerism was followed in the dressings. Nutriment was administered by the rectum for the first thirty-six hours only, after that a little milk was allowed by the mouth. There was no vomiting after the operation and hardly any complaint of pain, but thirst was very troublesome. The patient progressed fairly for three days, at the end of which time it was evident that he was losing strength, and that his blood aeration was not well performed. He died on the morning of the 20th, the stomach not having been opened.

The necropsy made by Dr. Windle showed a stricture in the œsophagus midway between the cardiac end of the stomach and the crossing of the aorta. The strictured portion felt very hard, and there was no ulceration. Microscopic examination demonstrated that the stricture was carcinomatous; in parts the spheroidal cells, and in others the stroma, predominating. The stomach had been secured at one-fourth from the cardiac end, and at one-third upwards from the great curvature. There was a circle of adhesions between the viscus and the abdominal wall, with a diameter of about an inch; these were moderately firm, but some gave way on handling. The only secondary deposits found were those above-mentioned in the neck and axilla. The right lung was pneumonic almost throughout, in the state of grey hepatisation.

Remarks.—There are some points in these cases to which attention should be called. With regard to the outer ring of sutures, the plan followed in the first case is more convenient than that advised by Mr. Durham, and not only more convenient, but safer, as harm is less likely to happen to the stomach walls. It is very important when opening the stomach to make a mere puncture only, as the wound so readily gapes; and this puncture should be made between the wire holders, which it is important to retain, with a quick vertical thrust, for the stomach wall is so thickened and yielding that it would be very easy to separate the adhesions, and so open the peritoneal cavity, as was demonstrated in the second case when the body was on the post-mortem table. Although the abdomen was opened in each case through the linea semilunaris, there was considerable difference as to the position at which the stomach was secured, an important detail, because it has probably been a bar to greater success in many cases that the stomach has been opened too near the pylorus or to the lower

border. A suggestion made by Mr. Butlin may obviate this difficulty. It is that a vertical incision be made in the abdominal wall and the stomach carefully examined before it is stitched in the wound, so that a suitable part may be opened; the vertical incision enlarged either way would give more room for this purpose than the curved. The existence of the abscess in the completed case was a great surprise, as there had been nothing to suggest its existence during life; but it is probable that the pain which came on when pressure was applied to the orifice of the fistula was due to the compression of the abscess sac, and so this complication must be regarded as interfering with the more complete success of the operation. How the abscess arose is not easy to explain, but it is most likely to have commenced at the irritation around one of the outer sutures; two of these were left *in situ* until the seventh day, when there was a little suppuration around them, and from this the abscess possibly extended. But the most important consideration is whether the patients gained by the operation. As regards relief from hunger, the first patient was much benefited; whether his life was prolonged it is difficult to say. It must be conceded that the second patient's life was rather shortened than lengthened, as the pneumonia which caused his death was probably due to the operation and the subsequent rigid confinement to the recumbent position. It teaches one lesson, however, that where operation is meditated it should not be deferred until the patient's powers are too far diminished to bear the strain that will be thrown upon them; in fact, that gastrostomy should not be looked upon as a forlorn hope, but that it should rather be regarded as a palliative in the light that colotomy is. The pathology of the growths is interesting; the first was an undoubted scirrhous carcinoma; the second, too cellular to be defined as scirrhous, was yet not an ordinary epithelioma, neither from the type of its cells nor their arrangement. The glandular affection, too, arising in the second case before complaint of œsophageal obstruction is worth alluding to.

Reviews and Notices of Books.

Report of the Scientific Results of the Voyage of H.M.S. "Challenger," Vol. IV. II. Report on the Deep Sea Medusæ, by Professor ERNST HAECKEL. Report on the Holothuriodea, by HJALMAR THÉEL.

THIS valuable memoir, on one of the smallest and least important groups of the deep sea fauna, collected during the *Challenger* expedition, is divided into two parts, the first of which is a sketch of a comparative morphology of the medusæ, which occupies a hundred quarto pages, whilst the second, somewhat longer, contains a description of the various species obtained. The memoir is illustrated by thirty-two beautifully executed plates, many of which are coloured, whilst each plate contains many figures exhibiting details of structure.

The number of new species brought home by the *Challenger* are stated to be eighteen, of which about one-half are Craspedotæ and the other half Acraspedæ. Though few in number, the interest that attaches to them is very great, since they are the first deep sea inhabitants of this class of animals with which we have become acquainted. Professor Haeckel admits that it is not certain that the whole of the eighteen species collected are constant inhabitants of the deep sea; the method of capture by the tow net by which such delicate and fragile organisms are often brought from great depths of the sea is still imperfect, and it is probable that the greater number of Medusæ brought up apparently from the depths really swim in shallower water, and are only taken in hauling in the net. Those only can be regarded as permanent and characteristic inhabitants of the deep sea which have either adapted themselves by special modifications of organisation to such a mode of life, or which give evidence by their primitive structure of a remote phytogenetic origin. Eight orders of Medusæ, distinguished by Haeckel in his System der Medusen (1879), are represented amongst the eighteen deep sea medusæ of the *Challenger* expedition. Of these, one species, Thamnostylus, belongs to the Anthomedusæ; one species, Ptychogena, to Leptomedusæ; three species, Pectyllis, Pectis, and Pectanthis, to Trachomedusæ; four species, Cunarcha, Polycolpa, Pegantha, Æginura, to Narcomedusæ; two species, Tesserantha and Lucernaria, to Stauromedusæ; two species, Periphylla and Periphema, to Peromedusæ; one species, Charybdea, to Cubomedusæ; and four species, Nauphanta, Atolla, Drymonema, and Leonura, to Discomedusæ. Thus, thirteen of Haeckel's thirty-two families are here represented. The geographical range of these Medusæ is very wide. Seven species were taken in depths from 80 to 600 fathoms, six species in depths from 1100 to 1600 fathoms, and five species in depths from 2000 to 2200 fathoms.

The first half of Professor Haeckel's memoir really constitutes an admirable account of the Medusæ as understood by the light of all modern researches, so many of which have been made by the Professor himself. He divides the Medusæ primarily into Craspedotæ or Hydromedusæ, and Acraspedæ or Scyphomedusæ, which correspond to the two sections of the Polyp class, Hydropolyps and Scyphopolyps. The Hydromedusæ are the inferior and less perfectly constructed class. In order to describe the structure of these animals a large number of new terms have had to be invented, so many, in fact, that a glossary is appended, giving the Latin and English names, with their German equivalents.

The able naturalist, Hjalmar Théel, to whom the description of the Holothuriodea has been committed, states that when asked to work them out he had not the least idea of the value and richness of the material he would have to investigate. He has found to his surprise that Holothurians live not only at vast depths, but in great numbers, and belong to many species, and that a large majority present certain peculiarities that render them strikingly different from the littoral forms hitherto known, and make them constitute perhaps the most characteristic group of the whole abyssal fauna. He has from these considerations felt himself justified in placing them under a new order, Elasipoda, equivalent to the Pedata and Apoda already known. The main characteristics of this group are that the body is more or less bilaterally symmetrical, the lateral ambulacra of the ventral surface, with for the most part non-retractile pedicels, disposed in one or two rows; the dorsal surface with elongated conical, non-retractile processes; integument with plates, wheels, and spicula; ambulacral vessels five. Polian vesicle single, calcareous ring incompletely developed; respiratory trees, ciliated cups, and retractor muscles absent; sexes distinct. He divides the group into three families—Elpidiidæ, Deimatidæ, and Psychropotidæ. M. Théel has made an immense number of drawings; no less than forty-six plates accompany the letterpress, and give the details of the structure as well as the outward form and aspect of all the new species. Altogether this volume is a great addition to our present zoological knowledge, and Professor Murray is to be congratulated on the rapid manner in which he is completing this splendid work.

A Guide to Therapeutics. By ROBERT FARQUHARSON, M.P., M.D., F.R.C.P., late Lecturer on Materia Medica at St. Mary's Hospital, &c. Third Edition. London: Smith, Elder, and Co. 1883.

IT is with much satisfaction that we note the appearance of a third edition of Dr. Farquharson's excellent work on therapeutics, although we feel constrained to take exception to a statement contained in the opening sentence of the preface, to the effect that the period which has elapsed since the appearance of his second edition has not been characterised by much activity in the field of therapeutic research. It is, perhaps, a matter of no great moment, but we were under the impression that during the last two years a great deal of very good work had been done not only in therapeutics, but also in the allied subjects of pharmacy and

pharmacology. The author gives a short account of many new or comparatively new remedies, including nitro-glycerine, iodoform, thymol, menthol, muscarin, euonymin, iridin, boro-glyceride, convallaria majalis, and grindelia robusta, but omits all mention of extract of malt, picrotoxine, pulsatilla, chinoline, hydrastis, hamamelis, homatropia, and many others equally deserving of notice. Under the head of pepsin he still gives the dose as from two to five grains, but does not call attention to the fact that the commercial article varies widely in strength, and that much now sold is almost destitute of active properties. In treating of carbolic acid and antiseptics, he quotes Mr. Watson Cheyne's recent observations in preference to Sir Wm. Mac Cormac's, given in previous editions. We find no mention of Harnack and Meyer's observations on the active principles of jaborandi, or even of Ladenburg's masterly researches on the mydriatic alkaloids. The therapeutic action of permanganate of potash is not fully given, and requires revision. The treatment of poisoning is as a rule good, but more stress should have been laid on the use of hypodermic injections of hydrochlorate of apomorphia as an emetic. The questions at the end will be found useful to students, although they hardly come up to the standard required for the higher examinations. It must not be supposed that we are finding fault with the book as a whole, for these are but slight blemishes, readily remedied in a subsequent edition. We think very highly of Dr. Farquharson's work, and feel assured that the popularity which it has attained is richly deserved.

OUR LIBRARY TABLE.

The Journal of Mental Science. Edited by Drs. TUKE and SAVAGE. October, 1883. London: J. and A. Churchill.—The current number contains a paper of some merit, by Dr. Wiglesworth, on the pathology of certain cases of melancholia attonita, or acute dementia. Changes in the nerve-cells of the cerebral cortex, said to be of inflammatory sort, are described, best marked in the so-called "motor cells." These alterations are regarded as the pathological basis of the disease in question. The bare observations are of much importance; and we trust that further careful work may be done in this department. In a large asylum where an autopsy is almost of daily occurrence, a vast amount of material comes into existence which is for the most part thrown away. Macroscopic examination in many instances reveals lesions of gross character. But perhaps the majority of cases exhibit little or no tangible evidence of the morbid process which had abolished the best part of the mind of the deceased. In such examples the necessity for the systematic and extended use of the microscope is patent to all who take an interest in mental disease. The discovery of lesions of the peripheral nerves in connexion with the nutritive changes associated with locomotor ataxy was the direct fruit of purely microscopical examination. This is surely an encouraging fact. The presidential address, delivered by Dr. Orange at the annual meeting of the Medico-Psychological Association, held at the Royal College of Physicians in July, is printed as an original article in this number of the Quarterly Journal. A retrospect of works published both in Germany and at home constitutes a valuable feature of the magazine.

How to meet Cholera. London: Knight and Co.—This small volume is issued in the form of a tract, which contains the various Orders and Circulars in regard to cholera which have been issued by the Local Government Board, together with a short summary of the legislative provisions designed to check the spread of infection. Information is also given on such points as disinfection, &c., during the processes necessary to the cleansing of towns and villages, and also as to the mode of dealing with infectious excreta. Although the immediate object for which the tract was issued is no longer a pressing one, yet the information which is embodied in it is such as should at all times be in the possession of sanitary authorities and of other persons who are responsible for the health of communities or establishments.

Brain Rest. By J. LEONARD CORNING, M.D. New York: Putnam's Sons.—This is a small treatise which is intended to draw attention to the effects of carotid compression in producing sleep by means of an instrument for this purpose constructed by the author. He does not, however, give data upon which any conclusion in regard to the practical therapeutic use of this instrument can be formed. Experiments made by it are interesting, but are open to many objections in regard to their physiological accuracy from the difficulty of dissociating arterial from venous and nerve pressure. The treatise does not demand comment in other respects.

Kallos: a Treatise on the Scientific Culture of Personal Beauty and the Cure of Ugliness. By a Fellow of the Royal College of Surgeons. London: Simpkin, Marshall, and Co. 1883.—A sensibly written little book, which those who are solicitous in regard to their personal appearance may read and profit by. We fear a Quilp cannot be made into an Adonis by any line of treatment, but it is undoubtedly true that care in diet, in exercise, in regularity of and sufficient sleep, and in free ablution, would improve the appearance of many a man and woman on the wrong side of forty. The suggestions made are throughout appropriate and intelligently given.

Archiv für Pathologische Anatomie und Physiologie und für Klinische Medicin. Herausgegeben VON RUDOLF VIRCHOW. Band 93, Heft 3.—The September number contains the following articles:—1. Contributions to the Study of Tumours, by Dr. F. Wesener of Giessen, including an account of a teleangiectatic myoma of the duodenum of unusual size, and a case of Carcinoma of the Pancreas, with Thrombosis of the Portal Vein. 2. Contribution to the Development of Anencephalism, by Dr. H. Ribbert of Bonn. 3. On Mediastinal Tumours, by Dr. P. Liborius of Cassel. 4. On so-called Fœtal Rickets, by Dr. E. Bode of Dresden—a detailed account of a specimen of this condition. 5. On the Dependence of the New Formation of Connective Tissue in the Arterial Intima upon the mechanical conditions of the Circulation, by Professor Thoma of Heidelberg. The first part of the subject is dealt with in this number in a discussion upon the effect of the closure of the umbilical arteries and ductus arteriosus on the structure of the aortic wall. 6. Further Contributions to the Study of Herpes Zoster, by Dr. E. Lesser of Leipzig. 7. On the Mode of Formation of Giant-cells around Foreign Bodies, and the Influence of Iodoform upon it, by Dr. E. Marchand of Königsberg.

L'Année Médicale 1882. Paris: E. Plon and Co. 1882. This is the fifth volume of this excellent annual summary.—The plan of the work remains the same as that originally adopted. There is nothing calling for special remark in the present volume. The chief contributions extend over a wide range of subjects, including anatomy, physiology, medicine, surgery, therapeutics, and hygiene. No attempt is made to present a complete analysis of all the work that has been done during the year 1882. But the book will be found of special value to the teachers and literary men of our profession. Brief memoirs of the more eminent medical men of various countries who have died during the past year are included in the appendix.

Hints to House-hunters and Householders. By ERNEST TURNER, F.R.B.I.A. 8vo. pp. 161. London: Batsford. 1883.—We are informed in the preface that this work was written somewhat hurriedly because the National Health Society was anxious to have it ready for their exhibition. This is to be regretted, as it bears evidence of haste and

incompleteness. There are a number of illustrations given in the volume, but almost all unaccompanied by any description, and there is no index to it. The chapter on the kitchen is little more then a *résumé* of the opinions contained in the report of the Smoke Abatement Committee on the merits of the various cooking apparatus exhibited at South Kensington. One of the best chapters is the short one on dust. The object of the volume is stated to be to provide "simple suggestions, in plain, every-day, intelligible English, on the various points of house construction and house arrangement, which careful study and wide experience have shown to be essential to the health and comfort of a plain, everyday, intelligent Englishman." Such a work would undoubtedly be a valuable addition to our popular health literature, but we regret to say we do not think it is supplied by the volume under review.

Analytical Records.

SAVORY AND MOORE'S PORTABLE PEPTONISING APPARATUS.

THE portable peptonising apparatus recently introduced by Messrs. Savory and Moore will be found most useful for the predigestion of milk, soup, jelly, beef-tea, and other articles of invalid diet. It is neat and compact, and the whole process can be carried on in the sick room without noise or inconvenience of any kind. The peptonising fluid recommended is the Succus Pancreaticus, or essence of pancreatine—a preparation which in our experience has proved uniformly reliable.

SCOTT'S EMULSION OF PURE COD-LIVER OIL, WITH HYPOPHOSPHITES OF LIME AND SODA.

(F. NEWBERY & SONS, KING EDWARD STREET, LONDON.)

This American preparation is correctly described by its title. The emulsion is well made, and will be taken by most patients with greater ease than the non-emulsified oil.

THE "BANYAN CURRY POWDER."

(F. COLEBY, ST. LEONARD'S ROAD, EAST INDIA DOCKS.)

This preparation is free from the common faults of curry powders. It contains no adulteration, and is not too hot to be eaten by children; it has, moreover, a delicate flavour.

ELIXIR D'EUCALYPTUS DES TROIS-FONTAINES.

(E. VITALI, 5 & 6, GREAT WINCHESTER-STREET BUILDINGS, LONDON.)

This elixir, which carries the signature of Fra Orsise, of the Trois-fontaines Monastery, near Rome, is made from the far-famed eucalyptus globulus, the extensive introduction of which in Italy and Algeria is said to have had such beneficial sanitary effects. It possesses in a high degree the pleasant aromatic odour and flavour of the leaves, and is recommended as a powerful febrifuge and antiseptic. We have no satisfactory evidence before us as to its value in these respects, but it certainly deserves a careful trial, and we shall at any time be prepared to hear on good authority of its successful use. There seems to be, at any rate, a chance of its proving a valuable remedy.

SKATE-LIVER OIL.

(J. HAY HENRY, MACDUFF, N.B.)

Skate-liver oil presents some obvious advantages over cod-liver oil. It is thinner in consistence, and, to our taste, distinctly less unpleasant in flavour. If, as alleged, the one is as useful as the other, we certainly prefer the skate oil.

FLEXIBLE MEDICINE CAPSULES.

(CHRISTIANI & CO., 11, QUEEN VICTORIA STREET, LONDON.)

These capsules, made in various sizes, are soft, clear, and transparent, and leave nothing to desire. We have received some boxes with castor oil, and some with emulsio santali alkalina. Several other kinds are sold.

OLD HIGHLAND WHISKY.

(TURNBULL & WOOD, NEWCASTLE-ON-TYNE.)

This spirit is, we find, remarkably free from fusel oil, and yet has the character and flavour of true whisky, which are often lost in the rectification. It is a wholesome form of alcohol, and may be used with safety in medical practice.

Abstracts
OF
INTRODUCTORY ADDRESSES
DELIVERED AT THE
MEDICAL SCHOOLS OF LONDON
AT THE
Opening of the Session 1883-84.

ST. GEORGE'S HOSPITAL.

INTRODUCTORY ADDRESS BY MR. WM. H. BENNETT.

AFTER some general remarks upon the difficulties to be overcome in selecting a subject to form the basis of his address, the lecturer spoke as follows:—

There is, however, one point which has not, so far as I know, at least recently, formed the subject of an inaugural address; and although, in calling your attention during the principal part of the time at our disposal to the "Social Position of the Medical Profession," the result may be less congratulatory than some of its forerunners, still I think it will not be altogether without profit. In speaking of the social position of the medical profession, I mean the estimation in which it is held by the public from a social point of view, as compared with their estimation of the Church, the Army, and the Law. Now, with regard to the first two, they may, I think, be dismissed without much comment, seeing that in each of them there are attractions of a peculiar kind, which it is unnecessary to dilate upon, which will always place them high in the social scale, and almost free from competition; so that the consideration of the subject we have selected resolves itself to a great extent into a comparison between the relative positions of Law and Medicine. I assume that the social status of a profession may be fairly gauged by the consideration of the sources from which it is recruited. We may also, at the outset, admit, I think, that law, from a purely commercial standpoint, has a decided advantage over our own profession by reason of its having the monopoly of a very large number of very highly-paid offices under the State. A short time since, whilst thinking this matter over, I came quite by chance across a paragraph in a book of recent reminiscences which is, I fancy, suggestive. The writer, a man of the world in every sense and of high social standing, in speaking of the selection of an occupation, says: "This choice of a profession is not an easy matter when, as a rule, the Church, the Army, the Bar, and the Diplomatic Service are almost the only four professions open to a young fellow." It is here sufficiently evident that a thought of medicine had never for an instant entered the author's mind. The results of conversation with those of a similar class will, I am certain, be found, nearly without exception, to tend in the same direction. The very great interest of the study, the honourable character of the men who practise medicine, are acknowledged with all candour and respect, but there the matter ends.

I should be deeply grieved if it were thought for one moment that I have any desire to hold in low esteem the profession to which I owe so much, for nothing could be farther from my thoughts; at the same time it is useless to ignore facts such as we now have before us, especially when they depend, without doubt, to a great extent upon defects which are steadily though slowly improving, and which for the most part are susceptible of being completely rectified. It is to a consideration of certain of these defects that I propose to direct your notice.

In the first place we must naturally inquire whether there

are any such conditions, which exist inherent in and inseparable from the calling itself. Of these I believe there are two which must always, it is to be feared, throw some little obstacle in the way of our social popularity. One of these exists in the fact that a certain part of our occupation must be of a somewhat menial kind, and, in some respects, upon superficial observation perhaps uncleanly, if not actually repulsive. The other inherent drawback lies in the fact that he who adopts medicine as his life-work is never free from the fetters of his business, inasmuch as he is, at all times and under all circumstances—often at a moment's notice—at the constant call of the public, a fact which, from the social point of view, must compare badly with the circumstances under which a solicitor or member of the Bar lives. The above conditions are, it is apprehended, irremediable, and must ever remain so. The defects, however, which it will be more profitable for us to dwell upon are those which form no integral part of the profession itself, and which may, as has been already said, in all instances be greatly alleviated and in the majority of cases removed. These are so numerous that I venture to consider those only which are the most obvious. I suppose it is certain that the point in which we compare the least favourably is that of State recognition. The Church, so long as it exists in its present state, represents the profession best patronised by the country, for in it are the most lucrative preferments; and its social status must be unexceptional and seductive, since its greatest prizes carry with them a seat in the House of Lords. The Army naturally occupies a position quite unique, as it should do in a nation essentially military. Law, again, has open to it the almost endless highly paid offices, already alluded to, under the State, and is represented by a number of its members *ex officio* in one or other House of Parliament. Compared with this, what the State does for Medicine is extremely small; of highly paid appointments, like those just mentioned, there are none. There is no State representative of the profession in either House of Parliament. The sparing hand which controls the distribution of Government honours is well known. It is, however, encouraging to note that very latterly there has been a promise of more liberality in this respect; for, since this time last year, honours have been conferred in a manner which would seem almost lavish in its generosity as compared with that of former times. In connexion with this we as a school have reason to feel justly proud, for to our lot has fallen the lion's share. Proud, I say, of the honours, but prouder still of the men who have brought these honours to us. I venture to say, without fear of challenging contradiction, that seldom has the State shown so great a judgment in the award of distinction as in the case of Henry Pitman and Prescott Gardiner Hewett. On the professional qualities of Sir Prescott Hewett it would be gross impertinence for me to comment. There are, I suppose, few men to whom this school owes so much, for there can be few men who have done so much for it. It was therefore to us a genuine sorrow when we felt the gladness caused by the announcement of his well-deserved reward overshadowed by the fact that at the same time came the news of his early retirement from the practice of that profession which can ill afford to lose the work of such a master-hand while still in the zenith of his powers. Of Sir Henry Pitman I will not presume to say more than this: he is a fitting representative of that good old school who held the diguity of their profession dearer than their personal interest—a point there is a temptation, in these days of competition, sometimes to overlook. A very small experience of the views which are generally held concerning our calling will, I believe, lead to the conclusion that there is no body so credited with being swayed in all directions by what is called "professional jealousy" as our own. The belief in the existence of this seems much strengthened, in the public mind, by the well-known medical etiquette, so much valued and respected by us all, which regulates our business relations and not seldom seriously affects our popularity, as from the point of view taken by the laity it is too often asserted at their cost, sometimes upon trivial and inconvenient grounds. With this same so-called jealousy it seems there is frequently associated, by the outside world, what is regarded, perhaps not wholly without grounds, as a strange propensity for exposing to view the dissensions and petty quarrels which from time to time disturb the professional calm. That this occasionally does not add to our dignity can hardly be questioned. As an instance of how little is to be gained by the public ventilation of matters which affect our mental quietude, may be mentioned the discussion on homœopathy which took place not very long ago. At the time referred to the daily press overflowed with letters on the subject, for the most part emanating from professional sources. What was the result? Homœopathy was galvanised into a more active existence and took a new lease of life. The object of a public discussion of such a matter is difficult to see. Homœopathy, in the proper sense of the word, has been long dead; the hybrid thing which now, for a time, flourishes under the name can never compete with a profession like ours, and surely it is far better treated with a dignified silence on our part, which will do much more for us than any quantity of altercation in the papers of the day. As bearing upon this issue, a remark of Plutarch, though familiar, is worth quoting. "It is otherwise," says he, "in a commonwealth of men than of bees, for the hive of a city or kingdom is in best condition when there is least buzz or noise in it." A delicate matter, which I approach with some anxiety, but one I feel bound to bring under your notice, because I believe it affects very materially our status, and as it is a point in which we suffer much in comparison with a calling like the law, is the relation of the consultant to the general practitioner. It is manifest that an arrangement made, it is presumed, at a time when medical education was of a somewhat meagre kind, when specialism hardly existed, and when the number of those aspiring to the position of consultants was comparatively small, would answer the purpose for which it was framed so long as the circumstances which prompted its origin remained substantially the same. It is, however, conceivable that the time may arrive when, by reason principally of the improvement in the education of medical men, the knowledge of the general mass of the profession may become so much advanced that the interval which separates the general practitioner from the consultant must materially diminish. Going a step further, it is not difficult to see that the general practitioner may in course of time take charge, as a matter of course, of cases which formerly were considered to belong almost exclusively to the domain of the hospital physician or surgeon. This state of affairs, combined with the increase of specialism, must of necessity abstract from the consultant a large proportion of his field of practice, a consideration to him of a very serious kind. But far more important than this comes a climax when, if matters are as I have described, one of the three following results must supervene: Either, 1st, there must be a diminution in the number of consultants; or, 2nd, the consultant must confine his practice to a much more limited sphere; or, 3rd, there must be a point sooner or later when there will be competition between the consultant and the general practitioner. It has been well said that "a true critic ought to dwell rather upon excellences than imperfections, to discover the concealed beauties of a work, and communicate to the world such things as are worth their observation;" for, as Dryden puts it—

> "Errors like straws upon the surface flow;
> He who would search for pearl must dive below."

The question may therefore now be fairly asked, If the position of Medicine is as has been indicated? and if drawbacks of such a sort are present in connexion with it, what does it offer which will enable it to compete in social aspects with the other professions? I am confident that I am justified in saying that there is no calling so full of genuine attractions. First amongst these is of course one of which so much is always made—viz., that its whole aim is the relief of suffering humanity, by the prevention and conquest of disease. In this alone there is verily enough of all that is interesting and noble to render it attractive in the abstract, at all events to society and the world at large. There is, however, another point, the only one to which I propose to invite your attention, which ought to enlist more sympathy for us than any other similar body could hope to gain. I refer to the fact that our profession is as yet merely in its infancy, with a future positively unlimited in its extent and grandeur. In a calling which has already attained its highest development, and has in the future no scope for advancement, it is the duty of its members to maintain at all costs the position in which they find it; for any retrogression means disgrace, and their sole ambition is to keep it in a state of perfection which is the result of other men's work. Contrasted with such, a profession like the one we have been fortunate to adopt holds out a field sufficiently great to satisfy the cravings of the

most ambitious, since in our hands for the present rests the work of aiding its progress to its exalted future, and, little as must be the assistance rendered by each one of us individually, it is quite certain that the combined efforts of us all are urging it on with gigantic strides. Already in the scientific world we rank amongst the foremost; socially and from a political standpoint we lag somewhat behind. What matters that? Will not the credit due to those who help us on be all the greater? And mark you well, that as we strive to attain to that rank which we must take in the not far-distant future, we work in the presence of "unseen witnesses," for the eyes of the immortal dead are upon us as we add our poor efforts to that struggle which shall make our profession the glory of this country and the envy of the civilised world.

The address concluded with a welcome to the new students, which was followed by some observations showing the necessity for the cultivation of a thoughtful mind, which, guided by common sense in the proper appreciation of the value of a thorough regard for detail in their studies, will gain for them that practical knowledge which must ever be the essential attainment of the successful practitioner.

KING'S COLLEGE.

INTRODUCTORY ADDRESS BY DR. ACLAND.

THE lecturer remarked as follows:—In the year 1847 the first Professor of Surgery in King's College, in concluding the Hunterian Oration, thus addressed a highly critical audience in the theatre of the Royal College of Surgeons of England: "By the institution and protection of seminaries of learning, in which is cultivated science anterior to the sciences, as the sciences to the especial professions, may we best ensure the growth and increase of professions united in their attachment to all ancient institutions and in all the hereditary loves, loyalties, and reverences that have ever been the precious birthright of an English gentleman—professions united with each other, and in union with the National Church." Joseph Henry Green never addressed an audience which he did not hold bound as by a spell. He rarely addressed one which he did not convince by his logic. His biographer, one also of the ornaments and lights of King's College, relates that on this occasion the meeting showed signs of dissent. A feeble minority began to groan and to hiss. An overwhelming majority shouted applause, and for a moment discord seemed to be impending, when the orator, writes Mr. Simon, "by one stately movement of head and hand, silenced the whole meeting so that a pinfall could have been heard, repeated his words with an emphasis so resolute and yet so conciliative that not one murmur resented them, and then, in language which might have been Plato's, concluded his sentence and oration, 'with the National Church.....as the universal organ according to the idea, for educing, harmonising, and applying all those elements of moral cultivation and intellectual progress of which religion prescribes the aim and sanctifies the use.'"[1] The occasion of the distribution of prizes in a medical school may scarce seem a fit occasion for calling to mind this pregnant utterance and this remarkable scene. But reflection will, I think, show the occasion to be not inapt, and of all schools this the fittest. The time is not come, nor can it ever come, when the distribution of prizes in a great medical school can lose its interest for thoughtful men. There is something in the occupation of the student of medicine which touches every well-constituted mind with singular force. In many vocations in life a certain self-interest, aiming at success, is the mainspring. Though this success depends generally, and ought always to depend, upon the right performance of duty undertaken, whether in profession or in trade, still self-interest is and will be the chief motive. But in the life of a student of medicine this is not, or at least need not be, the case. There is no corner of human nature which he may not one day or other be destined to explore. He may perchance be fitted intellectually for the study of some one of the sciences with which medicine is connected, and may be devoted to it. His progress, in that case, is watched with interest only in reference to the science in question. Competent observers note how much he adds to the mere knowledge of fact or of law in the world, and they estimate him accordingly. But in reference to the practical work of his future profession, men take measure of his whole character, as fitted by sympathy and singleness of purpose, as well as by scientific knowledge, to relieve the varied sufferings and sorrows of afflicted humanity. Mr. Green told a great scientific and professional audience that the groundwork of professional education was a high general culture with scientific discipline, and that these two should be in union with religion. In King's College no uncertain sound on this matter has yet been given. King's College originally laid down certain principles to guide her destiny as a great seat of education. Were her principles right? Do they need revision or change? To these difficult questions I purpose, with much diffidence, to devote the short time at my disposal. Neither my brevity nor the limits of my insight can be the measure of the seriousness of the inquiry or of its necessity at the present hour. One of Bacon's prayers was that "human things may not prejudice such as are divine; neither that, from the unlocking of the gates of sense and the kindling of a natural light, anything of incredulity or intellectual night may arise in our minds towards divine mysteries. But rather that, by our mind being thoroughly cleansed and purged from fancy and vanities, and yet subject and perfectly given up to divine oracles, there may be given unto faith the things of faith." This conflict between the things of faith and the things of sight is as old as Socrates. I am glad to think it is now as sturdy as ever.

"But the old simple life has passed away," it is said. It is only knowledge of things which is real in this world, though we are not quite sure what constitutes knowledge. All things cognisable are material; behind matter nothing is ascertained or ascertainable, though we are not quite sure yet whether matter be or be not. If there be aught else, then, to veil our ignorance as to what that is, we will call it *force*. Of anything beyond in nature, of will, human or superhuman, we know not, and therefore take no account. We are in an age of fact and a practical age. We trust our senses, untrustworthy as they are, and that which they can verify by experiment. Doubtless authority, if it override investigation, is of little worth. When we approach in our day a discussion as to the nature of man, it is something to believe that we are, in the main, at one with Plato, with Aristotle, and with Galen—with Dante and Fra Angelico—with Linnæus, with Newton, Galileo, Kepler, Herschel—with Butler and Kant, in whom the precise study and life-long contemplation of the material world and of human nature produced the conviction that as there is a finite human will, so there is, though known only by analogy, an infinite will, an absolute, superhuman, intellectual power—the supreme idea of all perfectness, interwoven with all good—to be inferred, wheresoever the feeble powers of the creature can scan the manifestation of the work, as of a Creator and Preserver. "Yes," it is said, "but all these men whom you quote pertained to the days of ignorance. We, the true ancients of the world, have outlived their infancy; we have seen one by one the weakness of these men of the dawn exposed; and we at length have the true light. The poet of Israel was deceived when he sang, 'He counteth the number of the stars and calleth them all by their names.' He did not perceive, as we now do, that not fewer than some 40,000,000 of suns are within the range of our scientific calculations. He did not see, as we now see, how fatal it is to the old faith that we have thus enlarged the conception of the contents of the physical universe. The few thousand stars which to the unassisted eye of the Arabian herdsman seemed countless, were justly calculated to inspire him with awe. We who read the larger figure, we, who see or infer so many millions, can read, in the everlasting law which pervades infinity, the negation of intelligence and will. We who can now note the chemistry of the sun as easily as Faraday read the flame of the rushlight, we see, by this our gained power, proof of the incompetence of a superhuman power to create, to evolve, to preserve, with intelligence and will. We disbelieve what we do not understand. Faith in probabilities and in abstract good has perished with knowledge. In the days of man's infancy alone would an afflicted seer cry out, 'Lo! these are parts of His ways; how small a portion is heard of Him!'" But let some one reply: "It is not so. You mistake the situation. It is not the quantity, but the quality of modern knowledge, which constitutes physical science. It is this quality which has wrought so great a change in the interpretation of nature." Well, then, let us ask ourselves more closely. What is the change in quality

[1] Simon: Life of Green, vol. i., p. 54.

of knowledge which parts off the ancient from the modern idea of the universe, and gives the latter the right to reject the conclusions of ancient simplicity? Now, if we reject the notion that the quantity of acquired human knowledge is destructive of faith in a Supreme intelligence, and inquire into the bearing thereon of its quality, we have to consider what alteration in this respect of quality has taken place in modern times. The alteration appears to lie chiefly in the enlarged, rapid, and often unexpected application of scientific knowledge to the practical circumstances of common life—as for example, the use of chloroform derived from chemistry, steam and electricity from physics, and the biological relations of lower animal and vegetable forms to medicine and surgery. Amongst these one illustration must suffice—one in which, through Wheatstone and Daniel, King's College has a special interest. When Franklin and Galvani made their experiments respectively into the currents of the thundercloud and the nerve-tissue of the frog, how little could their wildest imaginings realise the tremendous forces that were to minister as slaves of the every-day life of man. The mind becomes dazzled when it scans such results. Man seems, to the unreflecting, as if he were the creator of forces which he is but marshalling for his own ends. Yet man himself in his specialised nature may be none the greater for all these things. Many a heart in Cæsar's legions beat as true as ours or thrilled as deeply with tribal desperation among the resisting Britons, near two thousand years ago—perhaps at the very spot where these fiery contests may one day rage.

As we dismissed the idea that the quantity of modern knowledge has altered the conception of the idea of the universe, and of its moral government, so we may reject the thought that this quality of practical utility in applied science has directly wrought any such result; though it may have so done by fostering luxury, frivolity, or love of ease. It is, then, some other quality, if any, in knowledge or in science that has changed men's conception of the universe. This may be stated briefly, because it is known to all. It is the conception or hypothesis that the whole material frame of the universe is the outcome of necessary law, and that this law allows no room for any power other than is necessarily inherent in matter. Volumes would be needed to record either the consequences which follow from this conviction, or a tithe of the arguments which have been written for or against it. Suffice it now to remark that many are from this dogma led to accept as proved that the evidence of design in the universe is manifestly false—that there is no analogy between the constitution and course of nature (so called) and religion—that there is no evidence of the possibility that the individual human soul is guided by a being whose highest attributes are infinite goodness and love—and that there is no clear boundary line between man and the "beasts that perish."

As I have now said, the arguments for or against this view of the universe, sharply and absolutely fatal to Christianity, are so voluminous and so intricate as to be far beyond my power or my time now to summarise. But addressing my fellow students as man to man in the midst of the wordy strife, I may be allowed to say a few words of counsel, and, I hope, of peace. Men may accept that some sort of evolution of the present order of things is true, no one ought now to doubt. We may now all believe this earth was "without form and void"—that the land was divided from the waters—that life appeared in sentient and non-sentient forms—that original forms have both endured and have perished through ages uncounted and uncountable—that man appeared late, perhaps latest, on the planet—that our race has existed for a period far exceeding the mere suspicions of philosophers fifty years ago—that man is divisible into various races—that these races have many differences in respect of tendency to modification, of resistance to external conditions, of evolution towards the highest standard of intellectual gifts, of conviction of relations to a Supreme Ruler of the universe. All this admitted, one is forced to say, but in no dogmatic spirit, that many of the inferences of Materialists (I use the term as one of designation, not of criticism) are the result of too narrow data and too hasty generalisation. So, in past times, the faith of religionists throughout the world's history has been often founded on ignorance and superstition, and has been supported as well by the credulity of the masses as by the evil passions of rulers. But are these sad pages in the history either of religion or of science to prejudice us against the one or the other? Can we not both seek with confidence further knowledge of the universe which the present age lays bare for us, and also strive for the development of the spiritual yearning after the pure and the true, which, nearly 1900 years ago, was kindled in man by showing him his true relation to the Supreme Good. It is no doubt more than probable (1) that from infinitely minute matter, widely diffused, were formed incandescent masses, of which our planet is among the least; (2) that they cooled into the condition in which, as far as we can judge, the life and sensation whereof we are conscious in ourselves and infer in others became as they exist now in man; (3) that successive changes occurred through myriads of years in these cooling masses before life appeared, have occurred since life appeared, and are occurring still—as witnessed in the catastrophe in Java but the other day, an awful phenomenon which recalls pristine modes of local geological evolution; (4) that the evolution from inorganic to organic, and within the organic from the simpler to the higher forms, has been upon the whole progressive to a higher moral and intellectual type, with breaks, hindrances, cataclysms, variations, causes, of which many are unexplained, and many unknown; (5) that as yet there is no certain evidence from analogy or direct observation of the existence of similar or analogous life in worlds other than our own.

Do not allow yourselves to be perplexed or dazzled by the controversies as to the relation between physical science and religion. Of all discussions they are the most fruitless, unless we except purely metaphysical speculations. Scientific acquirement is the result of patient industry and careful self-education, not of controversy. Religion is the fruit of self-mastery and reverence, not of doubt and of wavering. The student of medicine has, of all men, under conditions, the greatest opportunities, if he has received a good education before his hospital days, of forming a true judgment of the nature of things. There is no department of precise knowledge, whether of physics, of chemistry, of biology, that is not open to him. All the fascination that the material world can display is his. His senses are open as many other men's are not. He sees daily in the facts before him the blessing of virtue, the evil of vice, the curses of ignorance. He notes in these at once the bane and the antidote. To him pure research and abstract science, as Pasteur and Lister have shown him, bring the rich fruit of applied and practical remedy. The all-embracing inquiries of Hunter and of the guardians of his treasure displayed in Lincoln's-inn-fields, satisfy both his craving for the highest biological truth as to the origin and evolution of things, and his desire to know the causes and laws of disease, of decay and of death, and the mode of averting, healing, and soothing the sufferings of mankind. To him all this is practical, and not mere work of the closet. His is a life of observation, of action, of experiment. These are to him not abstract questions only, they have a definite beneficent end. He cannot pursue in detail every branch of a growth so widespread as is his profession, but he learns enough to take interest for life in every advance of every science related to it. I could say much more, but I prefer to quote a passage from one of the greatest clinical teachers this metropolis has ever produced. This will tell you the temper in which you may best master your scientific studies and stand related to your fellow-men:—"Diseases are not abstractions; they are modes of acting, different from the natural and healthy modes—modes of disorganising, modes of suffering, and modes of dying; and there must be a living, moving, sentient body for all this. This body must be your study and your continual care—your active, willing, earnest care. Nothing must make you shrink from it. In its weakness and infirmities, in the dishonours of its corruption, you must still value it—still stay by it—to mark its hunger and thirst, its sleeping and waking, its heat and its cold—to hear its complaints, to register its groans. And is it possible to feel an interest in all this? Ay, indeed it is—a greater, far greater, interest than ever painter or sculptor took in the form and beauties of its health. Whence this interest? At first, perhaps, it seldom comes naturally: a mere sense of duty must engender it; and still, for awhile, a mere sense of duty must keep it alive. Presently, the quick, curious, restless spirit of science enlivens it; and then it becomes an excitement, and then a pleasure, and then the deliberate choice of the mind. When the interest of attending the sick has reached this point, there arises from it, or has already arisen, a ready discernment of diseases, and a skill in the use of remedies. And the skill may exalt the interest, and the

interest may improve the skill, until, in process of time, experience forms the consummate practitioner. But does the interest of attending the sick necessarily stop here? The question may seem strange. If it has led to the readiest discernment and the highest skill, and formed the consummate practitioner, why need it go further? But what if humanity shall warm it? Then this interest, this excitement, this intellectual pleasure, is exalted into a principle, and invested with a moral motive, and passes into the heart. What if it be carried still further? What if religion should animate it? Why, then happy indeed is that man whose mind, whose moral nature, and whose spiritual being are all harmoniously engaged in the daily business of his life; with whom the same act has become his own happiness, a dispensation of mercy to his fellow-creatures, and a worship of God." To these thoughts of Latham I would add no other words than these—that as Latham spoke and taught, so he lived and died. Unhappily for mankind, here as elsewhere, the human element too often overshadows the divine. The form is sometimes made to seem of more importance than the substance. Yet the essentials of the spiritual life are simple enough. They may be, and are, hard to teach and hard to attain. They are taught chiefly by example, which implies individual attainment. They are acquired by practice, which means individual self-sacrifice. They are summed up in the weighty words, μετάνοια, πίστις, ἀγάπη. These gifts, we are told, are not self-originated—having life, they are born of other life, ὁ καρπὸς τοῦ πνεύματος. Any system of education which has not seriously brought before the student some considerations concerning the spiritual life thus faintly portrayed has been for him faulty and inadequate, and is behind the science of the day. Any scheme of the universe condemns itself which leaves out of sight all that can be learnt of the character of a Heavenly Father from the study of the moral nature of man. No amount of acquirement in positive knowledge of physical science can remedy the deficiency incident to a wholly secular and materialistic education. For reasons which I need not here relate, the Medical Council has abstained from entering upon this stormy topic in its recommendations on general education. Nor would I presume to-day to examine even in the briefest review the countless speculations which are variously designated materialistic or agnostic, or the like. Modern literature teems with these. They are of singular diversity in respect of their force and their value. Some are the production of earnest, sober, patient seekers after truth. Some would seem to be the dialectic exercises of literature. Many impress the reader by their vagueness, many by their unwarranted assumptions, many by the inconclusiveness of their facts and their arguments. Some few rise to the height of pathetic and noble despair. Here and there one claims to serve as a guide to a higher earthly life, and is moved by a profound desire to lessen and to solace, by any means, the sorrows of mankind and the sufferings with which "the whole creation groaneth together until now." Any attempt to describe these various kinds of thought would but waste your time, and bring us to no conclusion. I would, on the contrary, take the opportunity of saying a few words of profound respect and sympathy for all efforts which, under these circumstances, have been and are now made for improved secular and specialised instruction, whether literary, scientific, or technical, which are not in their aim and intention antagonistic or aggressive. The importing religion into scientific teaching is fraught with danger both to religion and to precise knowledge. It seldom brings good to either. It exposes the teacher of science to the risk of weakness and timidity. It disposes the half-informed religionist to rely on broken reeds of material evidence, and not on the impregnable armour of faith and love. It seems to me that the day is come when each should support the other in the pursuit of his special vocation. The one should be encouraged in the fearless investigation of fact and cause and law in the material world; the other in the seeking to foster and comprehend the evolution of the spiritual life in the individual and the race. We seem to descry the dawn of a happier period. Already, God be thanked, many strong men, whether devoted by profession to the quest after physical truth or to the promotion of pure morality and the religious life, see that the love of specialising, however necessary, has its own dangers, and that the physicist and the religionist have each more hope of looking rightly upon the deep secret of the universe by union and sympathy than by misunderstanding and discord. In the life of more than one of the professors of King's College, all this has been fully set forth to the world, but in the life of one especially, Frederick Denison Maurice. For opinions deemed inconsistent with the dogmas of the Anglican Church you lost from among you the brightness of his character, contact with the profound depth of his solemn convictions, the sympathy of his loving nature. But he and Joseph Henry Green will stand out while English literature endures as types of strong men who, having approached education from very different standpoints, came to the same conclusion. Mr. Green—from the side of consummate knowledge of the material and spiritual organisation of man; of man as part of the animal creation; of man as the object of scientific, philosphical, and æsthetic study; of suffering man, to be cared for by the highest skill and sympathy through the advanced surgery of his time—tells you that the groundwork of education is to be found in the elements of moral cultivation and of intellectual progress, of which religion prescribes the aim and sanctifies the use. Mr. Maurice scanned with historical insight the light as well as the cloudland of metaphysical inquiry, from its dawn among the Greeks and Arabians to the mazy consummation of the most modern thought-painters. He read with wide sympathy the teaching, false or fair, of all the religions of the world. He tells the same tale, the result of a philosophic life in part spent within the walls of a great hospital, near the laboratory and the dissecting-room. And lest to some these references to the philosophical biologist and surgeon and to the liberal divine may seem too narrow, to savour too much of the closet, too little of the world; lest you blame me for not referring to more great names from your own roll (and how many living and not living I might now name!), I will quote from the senior member of your own Council, himself a chief force in modern progress—the Prime Minister of England. To him we owe some exquisite lines, in which he, great master of modern speech, has translated into the ancient tongue of the Western Church words which express the result of his own strong keen scrutiny into the phenomena of human life, its aspirations and hopes, in their world-wide and world-long relations:

Scis te lassum? scis languentem
Luctu contristaris?
Audin' 'Veni venienque
Pace perfruaris'?
* * * *
Persistentem, perluctantem
Certus est beare?
Vates quisque, Martyr, Virgo,
Angelus testare!

You in this institution, so steadily progressive in every department of human thought, for either sex, for all professions—you possess the heritage of these and many other great names. To you here, in this vast metropolis—the centre of liberty, of progress, of science, the seat as of deepest suffering so too of warmest goodwill to man—has been consigned by Parliament the precious national duty of maintaining the unity of human thought, secular, scientific, and spiritual, to be the method and basis of the highest education: secular—all the humanities, history, and art; scientific—all organised knowledge based on observation, experiment, and induction in the material world; spiritual—all that pertains to the higher nature of man, and his relation by faith to Supreme Good. And here I will end these few words on a great subject which affects all your young lives. Believe that no narrow distrust of knowledge, no want of sympathy with the most unrestrained progress of research gives any bias to my utterance. Believe rather that the deep conviction of my life is that the way to the true understanding of the material world, to one part of which you address yourselves in your biological studies, is the way which has been trodden by great men from Aristotle to Faraday—a way in which penetration has not cast out reverence, and wherein human insight has seen in the far-off gloom the mystery of a light which it counts to be divine.

ST. MARY'S HOSPITAL.

INTRODUCTORY ADDRESS BY DR. HANDFIELD JONES.

AFTER offering a cordial greeting to the friends and former and present students of St. Mary's school, the lecturer proceeded to remark on the temper in which both teachers and students should commence their work, entering upon it in a cheerful, hearty spirit, conscious of the difficulties it involves, but not afraid of them. The period of youth and

early manhood was described as one of rare value both for enjoyment and achievement, and it was insisted that the former should be sought in the latter, though not of course in it exclusively. The junior students were reminded that they now occupied the place of men, and had men's work to do, and should quit themselves like men. It was shown that it was quite possible to take deep interest in medical and surgical work, and the advantage of so doing was affirmed. Some details were entered into demonstrating that no excessive application was required of any student to enable him to pass through the ordinary curriculum with credit. A short history was then given of the foundation and development of St. Mary's Hospital and school. The labours and difficulties which its early promoters encountered and overcame were related, and the gradual steps by which the undertaking assumed its present magnitude. A confident hope was expressed that if so much had been done in less than half a century, the remaining half would surely not elapse without witnessing the completion of the scheme as originally planned, and it was suggested that it was greatly needed and most desirable that this completion should include the establishment of a convalescent annexe in pure country air. The remaining part of the address was occupied by an earnest dissuasive, addressed especially to the more cultured student, against lightly adopting the sceptical views now so prevalent, and by a brief summary of the more weighty evidences which seemed to the lecturer to establish the truth of Christianity. The points chiefly insisted on were: that the recognition of a Supreme First Cause is "a necessity of thought"; that the argument from phenomena implying intelligent design is accepted unhesitatingly in the case of human works, and ought therefore to be regarded as equally valid in the case of superhuman; that force and law require each an antecedent power; that as lifeless matter cannot produce life, it must have been imparted originally by 'the Lord and giver of life'; that miracles are no more impossible than any other extraordinary event, and are to be credited, as other events are, on evidence sufficient to satisfy a candid mind; that there is the strongest proof that the great miracle of Christianity—viz., the resurrection of Jesus Christ—is an historical verity; that the achievements of Christ's gospel even in the present day prove it to be a mighty power; and, lastly, that its ability to sustain the human spirit under the most trying afflictions, and to irradiate the hour of death with peace and joy, declare it to be no cunningly devised fable, but God's message to man.

ST. THOMAS'S HOSPITAL.

INTRODUCTORY LECTURE BY MR. LE GROS CLARK.

THE lecturer commenced by referring to his former connexion with the hospital, which had extended through nearly half a century, to the lively interest he still felt in its reputation, and the sympathy he had with the students in their trials, their privileges, and their legitimate enjoyments. He reminded them that their pursuits would necessitate their occupying themselves with the laws of Nature and search for truth; and added that the object of his brief address was to direct their attention to some of those laws in relation to themselves, and to indicate the share their own will might and ought to have in accomplishing the life-work before them. The physical and natural sciences, he remarked, were those which would occupy their chief attention. In the study of the natural sciences, it was well to make a selection of some one for special cultivation, according to their particular taste, and never afterwards to let it go. It would prove a healthful recreation at all times, amid the perplexities and worries of a professional life. Indeed, if Nature were wooed when they were young, she would repay them richly when they were old and their work was done, in the ever-increasing appreciation of the rich banquet which never satiated nor wearied. Moreover, this intelligent intercourse with Nature would teach them to trust her, and this trust would ripen year by year. He referred to the moral laws by which their conduct should be influenced and determined. He reminded his hearers of the distinction between their intellectual and moral nature, and that mental gifts might be employed to contravene and subvert the moral law, and thus be prostituted to selfish and ignoble purposes. The will was the potent instrument by which our conduct was regulated, and duty should supersede inclination in guiding the will. Self-examination was therefore the essential discipline of daily life. He illustrated these remarks by reference to the control of the thoughts in reading, in the lecture-room, and at the bedside, assuring his youthful hearers that if this habit of control were not acquired early it probably never would be. The importance of student life was dwelt upon, and the students reminded that knowledge must be acquired by slow degrees. Those who were disposed to be disheartened by lack of ability might take comfort from the definition of genius, as a "transcendent ability to take trouble," and the fact that the highest gifts are valueless without exertion; while moderate ability, earnestly exercised, might accomplish much. In commenting on the number of subjects which claimed the attention of the student during the comparatively short period of his sojourn at the hospital, the lecturer proceeded to say:—"I am well aware that this necessary compression of so much within so small a compass is consequent upon the rapid strides of natural science in these later days; and I deplore one result of this needful storing of the mind with so many facts—that education, in its higher sense, is neglected. It appears to me that the contrast between instruction and education corresponds with that between knowledge and wisdom. You may be a diligent accumulator of facts without being wise in their appropriation and use; so you may be instructed in many things without that discipline of the intellect which tempers the instrument, and fits it for any use to which it may be applied. Let me ask you to remember this when you are tempted to acquire knowledge by any artificial helps, or in an unmeaning and mechanical way. Seek rather to make the requirement your own, by investigating all its relations; and do not accept, on the authority of another, that which is within your reach to ascertain for yourselves. Your learning will be little worth unless you teach yourselves." Reference was then made to the examinations which the students have to pass, and to the lecturer's lengthened experience as to the special object of the examiner in practical subjects, in testing the qualifications of the candidates. The lecturer then turned to the more congenial subject of his old and honoured hospital, of which he spoke as the nursery of his professional boyhood, and his professional home for well-nigh half a century. He next briefly reviewed many of the changes in the treatment of disease which had occurred within his memory, and then asked,—"What is law as applied to matter? I do not accept the hard and chilling definition of this word, that it signifies 'only the ascertained sequence of events.' To my mind law signifies more than this; it implies a causative and intelligent agent—in short, a law-giver, beneficent and omnipotent, 'too wise to err, too good to be unkind.' If intelligence have not framed these laws, where else are we to look for an explanation of the uniformity of their action and their mutually adjusted government of matter, with all the grand and glorious outcome we have within and around us?" After some further remarks on the responsibility which the exercise of an unfettered will entails, Mr. Le Gros Clark concluded by exhorting the students to realise their responsibility while they were young and vigorous, remembering that age would bring with it sadness and remorse if they wilfully rejected the right and chose the wrong. He urged them not to limit their aspirations to securing their own happiness and the acquirement of knowledge, but to seek rather to realize the still higher and more noble purpose of their existence in promoting the good of others, and in becoming masters of themselves.

WESTMINSTER HOSPITAL.

INTRODUCTORY LECTURE BY MR. A. B. BARROW.

HAVING intimated his intention of addressing himself to those gentlemen who had just entered their names on the list of medical students, and having given them a hearty welcome both to the medical profession and the medical school, the lecturer proceeded: "You have to-day taken the most important step in your lives; you have embarked on the calling by which you have to gain your future livelihood; you have chosen the subject which is to occupy the greater part of your thoughts and time; and you have selected a profession which will do much to form your

character and shape your lives, and I heartily congratulate you upon your choice, because I consider the medical profession one of the highest and noblest callings in which a man can be occupied, a profession the study and practice of which summons into active service the highest intellectual powers with which mankind is endowed, and which, bringing him daily in contact with so much suffering and distress, calls forth those deep feelings of sympathy and affection which unite man to man. I venture to say no other profession can compare with it in point of utility, as is illustrated by the widespread good done by restoring an afflicted parent and breadwinner to health and activity; or by arresting the spread of fever by regulating sanitary arrangements; and by examples of lives saved in the hospitals. And what does man hold more dear than his life? Who would not sacrifice all his worldly possessions for it? It is a profession occupied in works of charity. Our hospitals bear witness to the truth of this; for what institution can have a more charitable purpose and supply a want more urgently needed than that of providing comfort and relief for the suffering poor? And the medical staff of each hospital enjoys the privilege of contributing largely to the maintenance of these charitable institutions, not by pecuniary donations so much as by the devotion of their time and skill; and it is one of the glories of the profession that, although its members are not possessed of wealth, they are nevertheless armed with a means of co-operating with the wealthy in affording relief and comfort to the poor. When I survey the subjects which form your programme of study my confidence in offering you my congratulations increases, for they are of such pleasurable and absorbing interest that men of all ranks and professions pursue some one or more of them for the sake of amusement. Some may contend that the difficulties to be encountered in their study destroy the pleasure; but is there no pleasure in success? and if there were no difficulties, where would be the success? In most pursuits of life a difficulty becomes an attraction. If you made a tour among the Alps, would you not take greater pleasure in climbing the highest mountain than the lowest? Your progress in the study of the profession may be compared in its steady, gradual course to the ascent of a high mountain.

"I next wish to caution you that the time allotted for your education is very short. An Italian philosopher expressed in his motto that time was his estate. You will do well to adopt this motto. Time is a more satisfactory estate to cultivate than a landed estate; for whereas the produce of the latter deteriorates after a certain number of crops have been grown upon it, each crop produced, each work accomplished, adds to the value of time; and you will find that the amount of work which you can perform in one hour will increase in each succeeding year of your student's days, and that the value of your time as practitioners in days to come will be proportionate to the advantageous manner in which you utilise it now. But remember that a landed estate is not estimated by its extent, but by its productiveness, and so must your time be estimated by the results of its employment, and not by its length. That you may form a correct estimate of the value of your time, and guard against its waste, I recommend you to keep a diary, in which you must record how each hour of the day is spent, and note the result of its employment. In your studies you will do well to cultivate with attention the powers of the mind at the same time that you store the memory with facts. Anatomy affords an excellent training for the powers of observation, as does physiology for your reasoning faculties. Before you have spent many days in the study of anatomy, I venture to predict that there will not be one of you who will not complain of his memory. If you were appointed custodians of a number of valuable treasures, you would so arrange them that you could inspect them readily; and the frequency of your inspections would be in accordance with the fear you had of losing them. In the same way you must so arrange and associate in your minds your anatomical treasures that you can inspect them easily, and with a frequency proportionate to the defect of memory of which you complain.

"Lastly, let me draw your attention to the fact that the motive with which you pursue your studies will determine whether you find pleasure in them or not. You all enjoy a game at football. Contrast then the motives with which you play your game with those with which you study. Do you not find as much opposition in the one as in the other? Do you not meet equally agreeable companions? Does not the mental exercise create as much satisfactory enjoyment to the mind as the muscular? But does the game of football fit you to gain a livelihood?—to assume the responsibilities of a profession in which life and death will be repeatedly in the balance before you, and the turn of the scale will depend upon your good judgment and skilful treatment? Does not the thought that your parents and friends will eagerly watch your progress, and participate in the pleasure of your success, or the disappointment of your failure, fill you with a heartfelt desire to keep steadily in the path of industry?"

ARMY MEDICAL SCHOOL, NETLEY.

THE winter session of the Army Medical School commenced on Monday, Oct. 1st. The introductory address was delivered by Dr. de Chaumont, F.R.S., Professor of Military Hygiene. The principal subjects discussed in his discourse were the recent epidemic of cholera in Egypt, and the questions it has evoked regarding the advantages of a system of quarantine with a view to stop the entrance of the disease into other countries, compared with those of a system of sanitary preparedness for confronting it, or, in other words, the adoption of all such hygienic measures as are calculated to prevent it from gaining a hold and spreading in case of its introduction. The almost uniform failure of quarantine for effecting its object was pointed out by numerous illustrations, while, on the other hand, the lecturer demonstrated the positive gains which had always resulted in proportion as hygienic measures had been properly carried into execution. Professor De Chaumont, in the early part of his remarks, congratulated his colleague, Dr. Aitken, who was present, on his recovery from a recent dangerous illness, and his congratulations were heartily responded to by the staff of the establishment and others who were assembled in the lecture-room. The session is being attended by twenty-five candidates for commissions in the public services—twenty for the British Army Medical Service, and five for the Indian Medical Service.

VETERINARY COLLEGE.

INTRODUCTORY ADDRESS BY MR. HENRY POWER.

THERE was here a large gathering of the old and new students. Lord Norreys occupied the chair.

The lecturer, after congratulating the students upon the cheerfulness and zest with which they resumed their work, and which he trusted would be equally felt towards the close of the session, when examinations, instead of being a mere speck on the horizon, loomed near and dark, lightly sketched the course of study through which they had to pass to become veterinary surgeons, remarking that the most important part of it was not the mere acquirement of the names of a number of diseases with a series of prescriptions supposed to prove effective in curing each, but rather the acquisition of the mode of investigation pursued by their teachers, for they would find that in practice few cases of a typical character presented themselves, the majority having complications which obscured or altogether concealed the primary disease. He quoted a passage from Professor Robertson's "Equine Medicine" where, in speaking of glanders, he stated that "it might seem to the uninitiated a strange matter that in a disease so generally accepted as malignant there should be room for doubt as to its existence, but it must not be forgotten that not a few developments of the disease are so insidious as to mislead or cause the most competent investigator to hesitate. Those who had had large experience learnt to discriminate between the essential and the non-essential features of a disease, and could often leap to a right conclusion, but for those who were beginning practice it was more prudent to examine each of the great functions of the body in regular sequence, and thus discover what organ was at fault. But in order to do this properly and well, it was absolutely essential that they should possess a sound and practical knowledge of the several organs of the body in health, or, in other words, to study anatomy and physiology, which were rightly termed the foundations of all medical science. He only feared that the time at their disposal would be found too brief to enable them to acquire the knowledge they ought to carry away with them. No one would think it prudent to commit a chronometer when out of order into the hands of the village

blacksmith; yet no comparison could be instituted between the most complicated and cunningly contrived piece of mechanism and the animal body, with its numerous interdependent parts acting and reacting on each other in the most intricate manner. But the watchmaker requires some five or seven years to learn his trade, and three or four are all that are usually at the disposal of the veterinary student. How important was it that they should waste no time, but take advantage of the means of instruction which surrounded them on every side! He recommended them to begin their work in each subject by thoroughly mastering the contents of some small book, when they would feel that they had made some advance, and that they had acquired a general conception of the whole subject. He thought that some of the discouragement that was apt to be felt when the first novelty of their work had passed off was due to the impression that the demand on the memory was too great to be overcome, and that it was useless to attempt to master so many details; but they would find that these details materially elucidated each other and fitted into the general scheme, and that if time were given to them they gradually cohered in the mind into one harmonious whole. It was this which made the difference between steady and continuous work and the process of cramming, for in the latter a large number of facts were driven into the student in a short time, and, being ill-digested and having little relation with each other, they were forgotten as soon as they had served the temporary purpose of enabling him to pass his examination. Whilst recommending the younger students to occupy their time with the study of their profession, he thought they might, with advantage if they found they had spare time, cultivate music and drawing. The mind like the body requires rest, and such resources as these made and strengthened friendships, and in the case of drawing might be of great service in enabling them to recall to their memory important cases that would otherwise be forgotten.

Addressing the older students, the lecturer insisted that they should not leave the college without being thoroughly familiar with all practical work. There could not be a doubt that much was lost to science because the surgeon under whose care the case falls is unable to mount a specimen, to make a chemical examination of a fluid, or to employ the various instruments now in common use in every school. Good cases, as they were termed, did not always come to the Veterinary College, they sometimes made their appearance in remote parts of the country, and were lost because the practitioner was too ignorant or too lazy to investigate and report upon them. He pointed out the important bearing which the pursuit of animal anatomy, physiology, and the knowledge of the diseases of animals had upon human medicine and surgery. A large proportion of the facts in these subjects which were regarded as most firmly established, and were incorporated in every medical work, were derived from observations and experiments on animals. Our knowledge of the circulation of the blood dates from the time when Harvey opened the chest of a living animal. The physics, as well as the chemistry, of the respiration were chiefly worked out upon animals by Malpighi, Mayo, Hooke, Hales, and Haller. It was in a dog that Aselli first saw the lymphatics and lacteals of the mesentery. Animals supplied the materials which enabled Malpighi to give an accurate account of the skin and mucous membranes. It is from experiments on animals that nearly all our knowledge of animal heat has been derived. The principal facts that are well substantiated in regard to the nervous system, again, have been obtained from the researches of a multitude of observers on animals. Indeed, of late years it might rather be asked, What subject has not, rather than what has, been elucidated by investigations undertaken upon animals? Yet, whilst acknowledging that much had been done, he still desired to press upon them the imperfection of our knowledge on many points, and he instanced splenic fevers, the *Milzbrand* of the Germans and *maladie charbonneuse* of the French. How many points are still unsolved which only require patient and skilled observation to clear up? What is its origin? How is it communicated? Can an animal be vaccinated with it with safety? Is one vaccination sufficient, or are two required? For how long does vaccination confer immunity? Why are some animals, like the Algerian breed, more refractory to an attack than others? It is generally admitted that the virus is a peculiar small bacillus, but where does this originate? Is it, as some thought, indigenous in hay? Can it be brought to the surface of the earth from infected buried carcases, as Pasteur believes, by means of worms, and ingested into the body through the agency of worm castings? Are bacilli always present in the disease when at its height, or do the bacilli sometimes, as Cohn maintains, break up as soon as formed into micrococci? Are the stages given by Davaine in accordance with fact? First, a pustule containing the virus; then a stage in which an œdematous condition is established around the pustule, the fluid containing the poisonous bacteria in abundance; and, finally, the generalisation of the disease through the system. If true, what important hints for treatment are afforded! Again, how far are Pasteur's later statements accurate, that the development of the disease is to an important extent dependent on the temperature to which the animal is exposed, so that an attack can be induced in a fowl which is not otherwise amenable to the disease by the simple process of exposing it to damp and cold before inoculation, whilst when the animal is sick and like to die its life can be preserved by raising its temperature to the normal standard, by exposing it to heat, which proves fatal to the bacillus? These and many other questions can be asked in regard to this disease alone. What fields, then, there still remain open to research; and what important results—even to mankind, as in the case of trichiniasis—may result from a single observation carefully made and clearly understood. He further pointed out that it was not even necessary, though it was often advantageous, to have the works of others before their eyes. A notable example was in the case of M. Pasteur, who, when solicited by M. Dumas to undertake the investigation of the silkworm disease, replied that he had never so much as seen a silkworm. "So much the better," said Dumas, "you will commence your investigation unfettered by preconceived opinions"; and Pasteur was not slow to feel the truth of the remark. In conclusion, he exhorted them to work, not with examination in view only, but with the desire of making themselves thoroughly familiar with their profession and capable of practising it without feeling that they had wasted their time and neglected their opportunities—the golden opportunities which they now enjoyed, and which would never return.

ANALGESIA BY THE PROPOSED NEW METHOD.

To the Editor of THE LANCET.

SIR,—My pupils, not I, have proposed to employ on our species the method I have discovered of producing analgesia in monkeys, dogs, and other animals. I am not prepared to make such a proposal; not that there is any danger in the method, nor that the degree of analgesia is insufficient, but because I have not yet succeeded in devising for clinical use an easy means of applying carbonic acid or chloroform vapour to the mucous membrane of the larynx, without allowing these substances to go into the lungs. This last point is of absolute necessity, as when these substances enter the blood, they can no longer produce, by irritation of the mucous lining of the larynx, their wonderful effects.

My experiments, some already published, others quite new, show that an irritation of the laryngeal mucous membrane (and also, but in a much slighter degree, of the lining of the upper part of the trachea) can, through the superior laryngeal nerves, or even through one of them only (but then the analgesic effect is chiefly unilateral), act on the nervous centres in such a way as to produce a more or less complete inhibition of either the power of perceiving impressions able to give rise to pain, or of the power of transmitting those impressions. Every kind of irritation (mechanical, thermic, chemical, or galvanic) of the terminal ramifications of the superior laryngeal nerves can produce that effect; but none in the same degree and with so great a persistence (in monkeys sometimes the analgesia lasts more than twenty-four hours) as the excitation due to carbonic acid or chloroform vapour, the first especially. The power of the parts I have named in producing an inhibition of the kind of sensibility relating to pain, without disturbing any other power or function of the nervous centres, is so great that sometimes a partial section of the larynx or trachea produces a temporary and almost universal, but incomplete, analgesia. I am, Sir, yours faithfully,

Paris, Sept. 1883. C. E. BROWN-SÉQUARD.

THE LANCET.

LONDON: SATURDAY, OCTOBER 6, 1883.

AS we anticipated, the lecturers at the various schools, in their Introductories, have laid before their audiences some diverse but yet in the main true pictures of our many-sided profession. To some minds the social and political aspects—the things of to-day—are all important, and eagerly press for solution and reform, whilst to others every delight is found in dwelling on and tracing the intellectual characteristics and mental attributes that have been the substratum of medical progress in every age, and are the common property of all the great investigators of medical science whom we have honoured in the past, have with us in the present, and hope for in the future. Both these phases—the eagerness to set right the present on the one hand, the anxious meditation on the past and expectancy for the future on the other—were typically represented in the opening addresses. The views on medical politics expressed by Mr. PEARCE GOULD at the Middlesex Hospital agree very closely with those which we have so frequently brought before the profession during the past year, and we can only add the expression of our own opinion of the urgent need of legislation on the lines indicated by him. The social advantages and disadvantages of our profession were reviewed by Mr. BENNETT, at St. George's. No one can doubt that "the social position of the medical profession" is well worthy of consideration, and capable of improvement. The question, however, of State appointments and State recognition is scarcely the ideal which should be laid before young men ardent in the pursuit of knowledge and eager for the reward which lies in the consciousness of a desire for well-doing. If lucrative preferments, highly paid offices, and seats in the House of Lords, be the goals of their ambition, our profession must be abandoned by them. Its social status and its dignity have never been increased by those who prize such rewards. Indeed it is clear that they will only in the most exceptional cases fall to those who are busily engaged in the true advance of medical science and art, and it is well for the good of the profession that such is the case. Even in the profession which the lecturer took for contrast, the sight of great lawyers and mighty intellects in eager struggle for the prizes of political partisanship is in no way elevating, and does not give the layman an exalted opinion of the dignity of the law. It is rather a keen satire, showing how little effect is exerted on daily life by a routine study of those great ethical principles on which philosophers have always assumed judicial practice to be based, when social success and pecuniary prizes form the standards by which the members of a profession elect to be gauged. The indecent competition for Church preferments, which is occasionally manifest, is too pitiful and sad a circumstance for us to dwell upon; whilst the Army and the Diplomatic Service have too few points of contact with us in their studies and methods to admit of any comparison between the professions. The true ideal which should be placed before a student who is anxiously striving to pursue a right path—and this is the only student who profits by an introductory address—is rather to be found in the remarkable lectures of Professors ACLAND and TWEEDY at King's and University Colleges. The manly and eloquent words in which Dr. ACLAND, a veteran physician and the official head of the profession, gave expression to his views as to the relations of physical science to religion must have impressed every hearer, and his view that, except metaphysical speculations, the discussions on science and religion which are now so prevalent and even fashionable are fruitless, is quite true, and well worthy of being remembered by the young medical student who is tempted to indulge therein at the expense of his proper studies. "Scientific acquirement is the result of patient industry and careful self-education, not of controversy. Religion is the fruit of self-mastery and reverence, not of doubt and of wavering." In similar words Dr. HANDFIELD JONES at St. Mary's insisted on the recognition of a Supreme First Cause as a "necessity of thought;" and these thoughtful and weighty addresses must have a far wider influence than on the limited audiences to whom they were delivered. In decrying and deploring the "utilitarianism" of the age and its pernicious effect on education in general, and medical education in particular, Professor TWEEDY took a bold stand, and we are sure that his appeal for more culture will not be forgotten, even at a time when technical instruction at the expense of a really liberal education is everywhere being urged on the student. The utilitarian spirit is poisoning our best education, and is the greatest obstacle to the improvement and progress of medical science. Intellectual eminence can be secured at the same time as practical skill, and our profession owes its advance to the scientific thinker and worker in a far larger measure than to the skilled artisan. "Train your senses, your understanding, and your reason, and have all your faculties under the governance of a resolute and vigorous will" is the well-timed advice of Professor TWEEDY. "Happy indeed is that man whose mind, whose moral nature, and whose spiritual being are all harmoniously engaged in the daily business of his life," are the words quoted by Professor ACLAND from that great clinical physician, the late Dr. LATHAM. These two passages, comprising the pith of the addresses of one of our oldest and one of our youngest professors, embody the highest advice, and amply justify the conservatism shown by so many of our schools in retaining the introductory as a means of speaking at the same time to the student, the profession, and the public. Great thoughts like these, so eloquently expressed, put the addresses of this year beyond any charge of indifferentism or mediocrity.

THERE is a good deal of unpleasant uncertainty as to the quality of the drugs we get in the ordinary way of trade. Apart from Professor ATTFIELD's much-needed warning that the public suffers much from the extent to which anybody who pleases deals in drugs, we should like to feel more assured than we do of the tolerable purity of the articles upon which—despite the sneers of some pathologists—so much depends in the practice of medicine. It is quite possible that the notion of adulteration is exaggerated. It may be admitted that in nine cases out of ten, the chloral

we prescribe induces sleep, the sulphate of magnesia purges, and the morphia relieves pain. Short of coarse tests of this kind, there are many therapeutical indications likely to be met by a pure drug, but in regard to which the use of an impure one would be wholly disappointing. We do not pretend to indicate with any precision the exact state of the case as regards the adulteration of drugs; but we direct attention to the subject, and to two or three facts in relation to it, and we claim for it a far larger amount of attention than it has lately received.

One chief fact in this matter is the recent assignment of pharmaceutical work to a distinct Society—the Pharmaceutical Society. This historical fact has not been sufficiently considered in all its bearings. It has led to an enormous development of the pharmaceutical art, and a great improvement in the extent and precision of pharmaceutical knowledge. By so much it has made it more difficult for medical men, whose own peculiar range of study has also been immensely extended, to keep fully abreast with the details of pharmacy, the character of drugs, and the tests by which their purity may be proved. There has been a marked tendency of recent years to separate materia medica from therapeutics, and it is quite remarkable to notice the degree in which this subject of adulteration of drugs is neglected, even in works professedly treating of materia medica, and in which one might expect to find it treated chiefly from a pharmaceutical point of view. In such a work, for example, as that of Squire's Companion to the Pharmacopœia it might be thought that the medical practitioner would get valuable and practical information as to the commonest forms of adulteration of ordinary drugs, and the readiest tests for its detection. But even here the therapeutical speculations are too attractive, and the author contents himself with only a brief statement of the official tests, and sometimes not even this. Let any practitioner take from his shelf the works on materia medica to which he most naturally refers for guidance in therapeutical matters, and he will confirm our remark that they treat very lightly the subject with which we are dealing.

Long before the Pharmaceutical Society was brought into legal existence it was the recognised duty of the Apothecaries' Society, under the sanction of the College of Physicians, to take pains, and somewhat rough steps, to ascertain the purity of the drugs dispensed to the public by the apothecaries who then corresponded pretty closely to the pharmaceutical chemists of the present day. It is as well to reproduce some clauses of an old charter to show that in those days it was somebody's duty to take notice of the quality and purity of drugs. Here are a few of the clauses of the charter granted to the Apothecaries, May 30th, 1616, by which they were separated from the Grocers' Company, and endowed with various powers and privileges. The charter will be found in a very useful little book, entitled "Laws Relating to Medical Men," by JAMES GREENWOOD. Clause 8 provides: "That they [the Master and Wardens] shall at seasonable times, and in a convenient manner, as often as to them shall seem fit, enter any house, shop, or other building of any person using or practising as aforesaid, anywhere within London or seven miles around, where any such medicines and the like may probably be found, and examine whether such medicaments.....are proper for the health and relief of the people." Clause 10 says: "They shall have authority to destroy all such medicines and medicaments as they shall find false, illegal, adulterated, or otherwise unfit, before the doors of the offenders, and punish them by fines as aforesaid." Clause 12 provides: "That nothing in this charter shall interfere with the authority of the President and College of Physicians in the oversight and correction of pharmacy," &c.

Here, then, was a function which in some way needs to be still discharged. The bodies to whom it was entrusted are no longer very fit, even if they are willing, to discharge it. The Pharmaceutical Society in co-operation with the College of Physicians, may reasonably be asked to undertake some such duties in the interest of the public. The Apothecaries' Company in many ways is not so fit as the Pharmaceutical Society. It is itself a trading company interested in the sale of drugs. As an examining Society in medicine its days are numbered and its *raison d'être* has lapsed. The exposure of the adulteration of food, first undertaken by ourselves with great public advantage, is now in a formal way—alas! too formal a way—the legal duty of public analysts; and so, too, is that of drugs. But as a means of exposing the adulteration of drugs, the Sale of Food and Drugs Act is practically useless. We must look for better work in this direction to that amendment of the Pharmacy Act which Professor ATTFIELD showed lately to be so necessary in the public interest. We do not care for the work to assume too exclusively a penal character. The more scientific the methods pursued, the better will be the work done. It needs to be done, and thoroughly and systematically, at any rate on such a scale that both wholesale and retail druggists will have decided interest in guarding the purity of their drugs.

AN infusion of Indian liquorice, Abrus precatorius, the jequirity of the Brazilians, has the property of inducing an acute inflammation of the conjunctival sac. This power, according to SATTLER, would appear to be due to the action of a parasite of bacterial nature (*vide* THE LANCET, p. 120, vol. i. 1883). The idea suggested itself to MM. CORNIL and BERLIOZ to investigate the influence of bacteria on the organism as a whole. Their results in this inquiry have been communicated to the Académie des Sciences. An infusion of a certain strength was made by steeping 32 bruised berries of jequirity for twenty-four hours in 500 grammes of warm distilled water, which had been previously filtered, boiled, and recooled. The liquid thus obtained preserved its activity for three weeks, and was kept in tubes which had been heated, and the mouths of which were stopped with cotton-wool. These precautions were taken to ensure cleanliness and the absence of other forms of bacteria. As the local effects appear to be directly proportional to the strength of the fluid used, the importance of obtaining a liquid of definite power is readily perceived. In the first series of experiments 1 cc. to 2 cc. of the prepared fluid was injected into the subcutaneous tissues of guinea-pigs and rabbits. All the animals died in the space of from thirty-six to sixty hours. Œdema of the skin, a slight form of peritonitis, with micro-organisms in the inflammatory products, ecchymoses in the gastric mucous membrane, swelling of Peyer's patches, often accompanied by hæmorrhage into them, were the chief phenomena recorded. Enlargement of Peyer's patches,

recalling that observed in typhoid fever of man, has been observed in many kinds of infective diseases of rabbits and guinea-pigs. In another observation, after the subcutaneous injection of ·5 cc. of the experimental liquid, inflammatory œdema, followed by intense phlegmon and superficial dry gangrene of the skin, was found to have spread over nearly the whole extent of the abdominal wall. In the serous and purulent effusions of this local inflammation, large quantities of bacilli were detected. Depilation over the diseased region was very easily effected; and a swarm of spores were discovered in the internal sheath of the hair-follicles. The animal recovered with an extensive smooth scar.

When 2 cc. of the preserved fluid, deprived of bacteria by filtration according to GAUTIER'S process, were syringed into the hypodermic tissues, no pathological effect followed. By similar mode of practice, 2·5 cc. of a solution of the crystallised principle of jequirity failed to produce any appreciable result. From these facts the inference is drawn that the bacteria in the experimental liquid are the only active agents.

Another series of experiments were conducted, in which ·25 to ·5 or 1 cc. of the liquid was injected into the peritoneum and pleura of rabbits. Death ensued in all cases in from twenty-four to forty-eight hours. Inability to maintain the erect posture, with co-ordinate convulsions (leaping) and groaning, were observed some hours before the fatal termination. The autopsy revealed intense inflammation of the serous membranes. Bacteria in the forms of rods and spores were found in the fibrinous and purulent exudations. Lymphatic glands and Peyer's patches were generally enlarged. Congestion and broncho-pneumonia on the side experimented upon were recorded.

In the greater number of the post-mortem examinations, very interesting lesions of the liver have been discovered. These foci of disease are believed to be due to the bacteria. Isolated yellowish-grey areas were to be seen at the surface of the liver. These islets were about ·05 m. in diameter, and disseminated in greater or less numbers on the inferior and superior surfaces of the organ. Scrapings from the surface of sections always exhibited under the microscope the bacterial rods of jequirity. Sections of these islets, after being hardened in alcohol and coloured with methyl violet, showed at the periphery of certain hepatic lobules an interlobular branch of the portal vein, sometimes filled with a clot containing in its meshes a quantity of the characteristic bacilli. A similar thrombus interrupted the circulation of a part of the hepatic lobule. In the same isolated foci of disease a certain number of intralobular capillaries contained sometimes bacilli in small numbers, with red-and-white globules, and at others agglomerations of bacilli. Not only rods, but also spores, were detected. The capillary network of the opaque islets was filled with leucocytes in various stages of degeneration. Nearly all the elements or granules were coloured by blue violet; some were stained of a greenish-blue tint. Whilst the capillaries were filled with the débris of blood-corpuscles, the hepatic cells were also greatly changed. They did not stain, and so contrasted with the brilliantly coloured healthy hepatic cells in their neighbourhood. Their nuclei were hardly visible, and in places presented a bluish tint, or were replaced by vacuoles. Yellowish pigment granules, not necessarily fatty, were to be seen in the atrophied and mortified cells. Bands of altered cells, however, were visible, directly continuous with the normal protoplasts. In certain of the opaque diseased areas bacteria were not found, these latter having been eliminated or destroyed in the midst of the destructive inflammation. Frogs, into the dorsal lymphatic sac or peritoneum of which injections of the jequirity were made, succumbed in from twenty-four to forty-eight hours. Bacteria in considerable numbers were detected in the cellular tissue, blood, and peritoneum.

The value of these new investigations in the domain of experimental pathology is great. It is interesting to remark that the local application to the conjunctiva affected with granulations or trachomata sets up an acute inflammation, with the result of causing the granulations to disappear as the secondary inflammation subsides. The limitation of the disease to the conjunctiva, when that part of the surface is alone inoculated, is an instance of want of absorption of the main agent in the production of the disease. There seems now to be but little doubt about the part played in infection by direct absorption. A more or less recent abnormal opening into the lymphatic or blood vascular apparatus is necessary for the production of distant lesions of genuine bacterial origin. An argument of much validity is hereby afforded for the doctrine of specificity of disease.

NEARLY all the Congresses and other scientific gatherings with which the autumn recess is now invariably associated find time in some section or other to discuss matters which affect the public health. Thus, in the Biological Section of the British Association for the Advancement of Science, Dr. W. B. CARPENTER, F.R.S., addressed an audience on "The Germ Theory and Disease," and in so doing he helped forward the views which are now held by an increasing body of biologists and physicians, to the effect that the contagia of the several infectious diseases are due to the progressive development, in hitherto innocent germs, of the conditions by which they acquire their infective activity. Dr. CARPENTER treated his subject from the natural history point of view. He expressed the opinion that even the innocent hay bacillus, which, when sown in such media as broth, only led to putrescence, and had no power of propagating its own kind within the human body, might, under favouring circumstances, undergo such a modification as to become the germ of severe disease; and, pointing out how the lower forms of life adapt themselves to changed conditions of existence, he argued that the development of a mild or a potent infection was, in the main, a matter of cultivation. This view is very different from that which is held by a certain class who maintain the *de novo* origin of infection. It is not a question of the development of a living organism out of matter independently of antecedent life, but the production, by a process of evolution, of qualities for harm in an already existing organism; and it is most probable that in such an explanation will be found the secret of the origin of the various contagia which so seriously affect both animal and plant life. Many years ago Professor BURDON SANDERSON, F.R.S., proved conclusively, and quite apart from the question of the infectious fevers, that the contagium of so-called traumatic

infections could be artificially developed. Indeed, he found that if the exudation of a simple peritonitis were injected fresh into the peritoneum of another animal, the disease assumed a more intense form in the second than in the first; and, further, that if in this way the disease were communicated to several animals, and by artificial selection the most severe cases were picked out, a virus could at last be obtained of which the virulence resembled that of the specific cases of the most malignant peritonitis in the human subject. In much the same way Dr. CARPENTER now asserts that the potency of the several specific contagia which affect man depends upon the nature of the breeding ground; he also believes that the decrease in the virulence of small-pox amongst unprotected individuals is to be attributed to a cultivation of the mild cases of that disease. The question is one of the greatest interest, and it is much to be deplored, as was pointed out by Professor LANKESTER, F.R.S., President of the Section, that this country should be hampered as it is by the want of means for promoting scientific discoveries of such importance to humanity.

At the Congress of the Sanitary Institute much of the work done was of a more practical character. One paper indicated clearly a series of evils which are to a large extent within the control of the public themselves, but which for want of a little scientific training, and still more for lack of some combined movement on the part of the sufferers themselves, are still allowed to prevail on all sides. The paper in question dealt with the evils attaching to the present system of erecting houses for the middle classes, reference to these classes specially being made, because the wealthier members of the population have at least the pecuniary means of protecting themselves, and because an important movement has already been inaugurated to provide better dwellings for the poorer classes. Mr. BURDETT, in dealing with this question, pointed out from actual experience how the bricks of houses intended for human habitation were either laid directly upon the clay which surrounds so large a portion of the metropolis, or, with a view to an apparent compliance with bye-laws, some material which was hardly removed from clay itself was in the first instance deposited on the bare ground. He further explained how he had found the "damp-course" to consist merely of pieces of tarred felt instead of some material which would really prevent all moisture from rising. Now both these departures from the principles which should govern the construction of human habitations are fraught with evil which may affect generations. The jerry-builder has, by means of his temporary devices, succeeded in keeping down the damp just long enough to enable him to sell or otherwise get rid of his house; but soon the imitation concrete foundation and the sham damp-course are found to be useless, and the unhappy residents come to live under conditions which favour the development of one of the most fatal of the hereditary diseases which affect this country. Nothing, indeed, has been more clearly shown in sanitary science than that residence on a damp subsoil and in houses having damp foundations is most liable to produce pulmonary consumption. Many other similar points might be referred to, but mention must be made of the only remedy which can effectually prevent such occurrences. Admirable bye-laws are often in force in districts where such buildings are erected; sanitary authorities meet and appoint officers for the protection of the public health, but the educated public concern themselves but little in local politics, and hence our sanitary authorities consist largely of the very men who have an interest in permitting the execution of such work; either directly, for the jerry-builder himself finds but little difficulty in securing his election to the Local Board; or indirectly, because the abstention of the better classes from taking their share in regulating local politics, practically delegates the work to men who are friends of the principal offenders. The Legislature may step in and provide additional officers to supervise the erection of dwellings, but so long as those officers are the servants of boards which are largely composed of men either ignorant of the first laws of health, or having an interest in evading them, so long must the public be subjected to evils such as we have indicated.

Annotations.

"Ne quid nimis."

THE GROWTH OF "THE LANCET."

WITHIN one day of the date of the present number THE LANCET will have been in existence sixty years. The late Mr. Wakley's modest venture was first issued on October 5th, 1823. There are probably not ten practitioners in the United Kingdom who were at that time in the active practice of their profession and who can recall what was the first effect of the journal on the professional mind. THE LANCET was the original weekly journal for the advancement of medicine as a great power among the masses of the people. We may say so much, because no one now disputes the fact. There had been journalists in medicine before Mr. Wakley took up his pen. At that very time Dr. Roderick Macleod and Surgeon John Bacot, who had not long left the surgeoncy of the Grenadier Guards, were conducting a journal which, from a purely scientific point of view, was exceedingly well done, and was sometimes not badly illustrated. They, too, were the successors of other able editors, notably Dr. T. Bradley, Dr. Samuel Fothergill, and William Hutchinson. But these had all represented the profession in itself. The profession, the whole profession, and nothing but the profession, was their motto. Our founder took a different position. He took the people, the whole people, and nothing but the people, as his constituency; and while he never deserted the real and long-sighted interests of medicine, even as a compact professional body, he held by his text and preached from it until he succeeded beyond, far beyond, his own most sanguine expectations. In his preface to the first number of THE LANCET, Mr. Wakley tells to whom it was addressed. It was intended to be useful "To the medical and surgical practitioners of this city—London,—whose avocations prevent their personal attendance at the hospitals:—To country practitioners, whose remoteness from the headquarters, as it were, of scientific knowledge, leaves them almost without the means of ascertaining its progress:—To the numerous classes of students, whether here or in distant universities:—To colonial practitioners: *and, finally, To every individual in these realms.*" The last promise—which we have italicised—was the keynote of THE LANCET, and it is by that it has become known and recognised as being above all class and clique. The undertaking was, and has always remained, arduous. In carrying it out, medicine as a literature has had to be simplified; "mystery and concealment" killed; "ignorance and mystery" made "synonymous"; "cere-

monies and signs" deprived of their charms; "hieroglyphics and gilded serpents" deprived "of their power to deceive." These things were to be destroyed, and new things were to be introduced. When we note that the first article in the first LANCET was an introductory lecture to students at St. Thomas's by Sir Astley Cooper—a lecture, by the way, as fresh to-day as when it was delivered—we show, in part, the full life of a now sexagenarian work that has been conducted under an Editorship which has but once changed hands, and which, at the death of the founder, twenty-two years ago, devolved as a sort of heirloom on his son, Dr. Wakley, the present Editor. The first principles of free and independent journalism have been and will be faithfully maintained. To what extent the little double sheet has gradually increased, this day's impression, which consists of ninety-six pages, will indicate.

PROFESSOR MICHAEL FOSTER'S ADDRESS.

ON Wednesday night at the opening of the session of the School of the Pharmaceutical Society, Professor Michael Foster delivered an address after the annual distribution of prizes to the successful students. Dr. Foster began by saying that he was not altogether an outsider among those whom he had the pleasure of addressing, for he had gone through the rudiments of the art of pharmacy in his youth. But what he wished specially to dilate upon this evening was the subject of examinations, on which he held very strong views. Now, the passing of an examination was regarded as a mark, stamp, or certificate. Of what? He ventured to think that success in this sphere of action merely indicated that the prizeman had the ability and skill to get on in an examination. No doubt a stupid and idle man could not get first places in examinations, and so the industrious and clever were picked out by the process. But it was certainly not the case that those who failed to get the highest honours in examinations always went to the wall in after life. On the contrary, he was sorry to say that he knew some who had succeeded to the fullest extent during the examinational period of their life, yet did not maintain their prestige as time rolled on. And not a few men who were signal failures at examinations have proved of enormous value in after years. But he felt he was not there to rail against the existing state of affairs; rather, he thought, advantages and disadvantages attached to the present system. We might truly say analogically:—

> Wherever God erects a house of prayer
> The Devil always builds a chapel there;
> And it will be found on close examination,
> The latter has the larger congregation.

So examinations, like everything in this life, were "mixed." To some a vast amount of evil was wrought from the fact that no proper knowledge had been acquired to pass the standard; but with the aid of a "coach," who landed him over his troubles on his back, the good-for-nothing student got through his work, not by his own ability, but by his "coach's" skill. Nowadays "coaching" had certainly achieved the position of a fine art. The coach exhibited a great deal of energy, but not in the really right direction. He displayed his capacity in teaching the pupils the state of the examiner's mind, the whims and fancies most likely to "tickle" him. On the other side, some men undertaking to pass an examination have not only done so with credit, but have, like Saul the son of Kish, sought for a living and found a crown. They have found what is better than medals—knowledge. We ought to make a supreme effort to minimise the evil and increase the good. He advocated a plan of examination which is partly carried out at the School of Science, South Kensington. That was to study and be examined upon each subject separately and by the same individuals who had acted as teachers. Above everything he was opposed to compulsion. He would like to develop the freedom of the people in all things. Diminution and not increase in the number of laws was what he wanted. And he preferred that government which in the end finds nothing to do. Professor Foster next touched upon the subject which formed the text of Professor Attfield's address recently delivered. He said that if all people were sufficiently educated there would be no necessity to place a restriction on the sale of powerful drugs and poisons. However, at the present time compulsion ought to intervene, so that only those who had been properly taught the nature of such agents should be allowed to deal in them. After remarking on the closeness and bitterness of the competition which existed in every field of occupation in life, no doubt due to the invasions of science, the lecturer concluded by saying that he thought, after all, a pharmacist's life was worth living. A vote of thanks was proposed by Sir Frederick Abel, and seconded by Professor Armstrong. The Hanbury Gold Medal, awarded to Mr. John Eliot Howard, F.R.S., was then presented by the President, and the meeting terminated.

THE CITY DINNER GRIEVANCE.

THE discussion lately carried on among City clerks by means of the press refers primarily to a question of money charges; but it has necessarily an important bearing on the quality and kinds of food which are purchasable or may be brought within the reach of the class concerned in the discussion. There can be no question as to the advantage of having a substantial meal somewhere about midday. To endeavour to sustain continuous work during nine or ten hours with no better provision than a sandwich or two, and these frequently despatched rather than eaten, is certainly unwise, and not the less so that a heavy evening dinner is afterwards thrown upon the exhausted stomach. It is equally certain that the midday meal should not consist of anything which the random freaks of appetite may happen to suggest. We see a tendency on the part of those correspondents to make much of fish and of vegetables, and to minimise the daily meat allowance, or even to exclude it, as being more costly and not strictly necessary; but it must not be forgotten that a considerably larger share of the former than of the latter is needful for substantial feeding, so that the cost is equalised, or even turned against the lighter fare. There is now much talk of brain foods, and no doubt certain materials do nourish the nervous system more than others; but, notwithstanding, the brain-worker is not a brain; he has also a body to maintain in vigour, and, without at all denying the necessity for brain feeding, we do not believe that a perfectly nourished brain is to be found in a body whose bone and muscle are underfed. There are similar tissues in both, and for each that food is best which contains a due admixture of all the nutritive elements. A fish or vegetable dinner once a week or so is an agreeable and beneficial change of diet; but the total daily ration of meat should not, as a rule, be less than half a pound, or, indeed, for most men less than three-quarters. As to drink, we are not of those who think a stimulant by any means always necessary. For some who are up in years or out of tone it is so, and such are usually fortified by a medical opinion to that effect; but the young and strong are healthier and clearer-headed when they practise abstinence and imbibe no stronger fluid than pure water. Tea at dinner has been hinted at as a desirable substitute, but its nerve-exciting properties render it undesirable as a daily drink, except in very limited quantity. We must not omit to note how important it is that, whatever constitutes a dinner should not only be of fair quality, but also thoroughly well cooked, otherwise the digestive power will probably prove unequal to the demand upon it.

We do not advert to the best means of securing cleanliness and order in public dining-rooms, or of settling the vexed question of expense; but we shall be astonished if the enterprise of so many young business men cannot devise some method of united action by which a diet such as we have sketched may be placed within the reach of the great majority of their number.

THE CONVICT GOULDSTONE.

THE intimations which have appeared in the general press will have prepared the public for the announcement that Her Majesty's Secretary of State for Home Affairs has received such a report from the physicians appointed to examine the convict William Gouldstone as would justify his removal to an asylum. Of course not to "penal servitude"! A prisoner of this class is always either sane, and must be hanged; or insane, and cannot be punished in any way, only confined in an asylum "during her Majesty's pleasure." The following is a summary of the case in its clinical aspects. The prisoner is a man, twenty-six years of age, who had worked regularly and steadily at the Falkirk Ironworks, in Thames-street, for five years. He had married a respectable young woman soon after becoming employed at these works, and there were five children of the marriage, the eldest of whom was three years and a half, the next two years and a half, the next sixteen months, and the two youngest (twins) were one week old when they were killed. The man, although steady and regular in his work, and although spoken of by his wife as a kind husband and father, was mentally incapable of bearing up against the ordinary cares of life; and when those cares came upon him, in the ordinary course, he became melancholic and deranged in mind. He fancied that he would not be able to bring up his children in comfort; and this thought took such complete possession of his mind at last that he was unable to see any other way of escape out of his troubles than by taking either his own life or the lives of his children, or both. The statement of his wife published in the *Daily Telegraph* of Sept. 20th (which appears to have been in all main particulars trustworthy), shows that, during their married life, she had noticed that he was often absent-minded and given to brooding; and that often, if asked a question, however simple, he did not at once reply, but would think over it and then say something not concerning the question; that the only way in which he spoke to her of the burden of the family was to express regret at her hands being so full, and because they could not go out together as formerly. She said he was painfully aware of how easy it was for him to get worried, and he had often said to her that it was a good job he had not much to think about, as he was sure, if he had, it would turn his brain. Shortly before the last babies were born he said to her he believed he had not many weeks to live. The prisoner, in addition to his mental defect, suffered from a double inguinal hernia, and this troubled him, not only by the physical inconvenience, but also by making him fear that it might get worse, and so render him unable to work at all for the support of his family. He had often suffered from headache and giddiness, and had asked his fellow-workmen to strike him on the head with a hammer to put him out of his misery. He comes of a family of which many members have been insane. His mother was melancholic at the time of his birth, and it was necessary to put knives and razors out of her reach and to watch her. One of his maternal aunts was insane; a maternal great-uncle committed suicide; and a maternal great-aunt was insane. On the paternal side two second cousins had been inmates of asylums. The prisoner, by reason of melancholia, had come to regard life as a burden and an evil, not only to himself but also to those nearest and dearest to him. The considerations that he was in constant work, that there was nothing approaching to want in his home, and that many of his neighbours had much less to live upon than he had, afforded him no comfort, apparently because his mind refused to think of anything of a bright or cheering nature. He saw nothing but misery in store for him and his family. Suicide would free himself, but then his children would be left in misery, and they would be a burden to his wife, to whom he was, and is, much attached. After wandering about therefore for the greater part of one day, he went home between five and six o'clock and killed all his children, and then placed the three eldest on the floor side by side, and waited for the constable to come, to whom he said, "I have done it; now I am happy, and ready for the rope." He thought he had done a better and more courageous thing than if he had committed suicide. He was a man fond of his home, always returning regularly thither as soon as his day's work was done, and spending his Sundays with his wife and children, and he had scarcely any companions or pursuits away from his home or his workshop. The conclusion at which the physicians appointed to examine the convict arrived was that he had for a considerable time suffered from gradually increasing melancholia, with suicidal tendencies. It is not, of course, true to say that because an act is atrocious doctors necessarily believe the perpetrator to be mad; but it is true that insane persons not infrequently kill those nearest and dearest to them in the way in which Gouldstone did. There was the case of the sergeant in the artillery who, in 1860, killed his wife and his six children at Sandown Fort in the Isle of Wight, and who was insane and was acquitted on the grounds of insanity; and that of the poor woman at Bollington, in Cheshire, only the other day, who drowned three of her children, and who was insane; besides very many more similar cases. The atrocity of the deed does not prove insanity, but it certainly does not prove the opposite. We may have something to say hereafter on the *proper* course of procedure in cases like that of William Gouldstone; but, for the present, we simply rehearse the facts.

CHILDREN'S HOSPITAL, ABERDEEN.

LAST Thursday week Aberdeen was *en fête* on the occasion of a visit by the Princess Beatrice for the double purpose of inaugurating a magnificent park handed over to the citizens by Miss Duthie and of opening a bazaar in aid of the Children's Hospital. Though the extensive and beautiful park has its health interest, it is with the lesser event we concern ourselves here; and it may at once be said that all connected with the hospital, so largely due to the efforts of Professor Stephenson, may be congratulated alike on its origin, its history, and its prospects of increased usefulness. Till about six years ago Aberdeen made no special provision for the treatment of children in hospital, and even then it was thought by many that additional beds should rather have been added to the Royal Infirmary; but if success is a guarantee of the original necessity we have it here proved abundantly. At first, provided with only fourteen beds, the rush for accommodation could never be met, and even the thirty or more beds afterwards available were not enough. It was thus necessary to add considerably to the building, and quite recently an anonymous gift of £1000 gave the directors such an indication of public interest that they determined upon the addition of a fever block, the extension of accommodation for ordinary cases, on providing at least two large new wards and one or more small ones, a model post-mortem room, a small museum, and more space for attention to out-door cases. All this meant a large expenditure and necessitated the bazaar, which, under the auspices of the Princess Beatrice, has turned out a great

success. Her Royal Highness met with a fitting reception at the hands of quite a crowd of those interested in the hospital; and after a detailed description of the present building and the proposals of the directors by the Earl of Aberdeen, the Princess declared the bazaar open and wished it every success. The sum realised during the three days was no less than £1982, which, with the funds already in hand, raises the total to about £4000 available for building purposes. We may be permitted to hope that this enlarged sick children's hospital will prove a valuable addition to the Aberdeen Medical School, and that its clinique will be largely attended by the students, besides proving an inestimable boon to the younger members of suffering humanity, drawn from dens too often the sole cause of the sufferings of the innocent. From the first Drs. Stephenson and Garden have been the principal medical officers, and a year or two ago Dr. Macgregor was appointed assistant-physician.

THE WESTMINSTER UNION.

THE guardians of the Westminster Union cannot be congratulated on the condition of their judicial faculty just now. The honour lies rather with those who come under their displeasure. The public generally has been not a little shocked at their action, or rather inaction, in the matter of the charges brought against the master of the Poland-street workhouse, Mr. John Daniel Bliss. The charges which the Local Government Board regards as established against Mr. Bliss are thus stated by the assistant-secretary of the Board:—

"That Mr. Bliss twice threw water from a bucket over an inmate named Ellen Coleman; that he kicked a woman, named Ann Lane, on the back of the thigh; that he kicked a boy, named James Daley, twice on the rump; that he was in the habit of swearing and of using expressions of an objectionable character when irritated; that he had exercised no supervision as regards the entries in his portion of the workhouse medical relief book; that he had not entered in the provision accounts as absent inmates who were in fact absent on leave from the workhouse; that he contravened the Board's regulations by placing Caroline Barber, aged sixty-four years, upon bread and water; that there had been undue delay in the registration of four births in the workhouse; that in the case of two females, named Caroline Clegg and Elizabeth Leach, who died in the workhouse, he did not take sufficient care to give notice of their decease to their respective relatives; that through want of due care a mistake was made as to a body sent for burial; that he allowed Elizabeth Farquharson to leave the workhouse for four days to go to work, and that he charged in his accounts rations for her during that period; that his behaviour towards Mrs. Casher on her visiting the workhouse to see two girls in whom she was interested, was discourteous; and that he used very improper language to Emily Brown on her visiting the workhouse to see her husband, an inmate."

We have no right to any special opinion on these charges. But we can have no room to doubt that they fully warrant the action of the minority of the guardians—justified, as it is, by the Local Government Board—who throughout have voted for inquiry and for the resignation of the master. The only point upon which we cannot agree with the Local Government Board is their decision not to require the resignation of a master against whom such accusations are established. Their own reason for this course is entirely unsatisfactory—viz., that Mr. Bliss still retains the confidence of the guardians. He retains the confidence of the majority of the guardians because they do not believe in the charges which the Board considers to be established. It may be logical for the guardians to retain Mr. Bliss; but it is wholly inconsistent in the Local Government Board to do so. This on their own showing. And it will find itself in a very responsible position in the event of any future irregularities occurring in this establishment. The guardians seem to be as much dissatisfied with their medical officer as they are pleased with their master. They have, we learn, suspended Dr. Rogers from his office. We have yet to learn particulars of the grounds for this step; but the presumption of the case is entirely favourable to Dr. Rogers. First, there is the peculiar state of the judicial faculty of the guardians, shown in their protection of the master from inquiry, and from that deposition which the Local Government Board think his conduct would have required but for the continued confidence of the Board. Secondly, there are the antecedents of Dr. Rogers, who is not a man of yesterday, but who stands creditably associated with the greatest reform in the treatment of the sick poor which has taken place in our time. We can confidently await the charges of the guardians against Dr. Rogers, as coming from those "of whom to be dispraised is no small praise."

SCIENCE AT THE CHURCH CONGRESS.

PROFESSOR FLOWER'S paper on "Recent Advances in Natural Science" was of great value, not only for its intrinsic excellence, but for the expression of opinion it elicited. The remark that "there is no position so fraught with danger to religion as that which binds it up essentially with this or that scientific doctrine with which it must either stand or fall," is pregnant with good sense. Professor Flower spoke out boldly, and proved a worthy henchman of science. He might, however, have gone further than he did, and affirmed that by the discovery and formulation of the doctrine of evolutionary development, Darwin, unwittingly perhaps, has done more for religion than any theologian ever did. He has supplied the key to the great enigmas of original and inherited sin or sinfulness, the visiting of present transgressions on generations as yet unborn, and shown how by the principle of development through, and by, the influence of the environment—as in the calling into existence of new species—there is produced the strongest scientific evidence of the existence of a soul and of a future. Man is unquestionably the subject of a self-consciousness which, according to the doctrine of development as expounded by Darwin, could have no existence if it had not been called up within him by the constructive and developmental influence of those very realities whose existence the *unscientific* atheist denies. If theologians are wise, they will stand aside awhile and wait the issue of further progress in science, confident that Truth is *one* and must prevail.

LEAD POISONING.

AFTER a brief respite, caused no doubt by the increased attention on the part of employers to the enforcement of preventive measures among their workpeople, aroused by the outcry made against them at the beginning of the year, cases of plumbism are beginning again to draw the attention of the public by their frequent recurrence. The cases reported have occurred, as may have been expected, at the East End, where lead factories are the most numerous, and where previous inquiries have shown that preventive measures are not enforced with the stringency that can alone ensure immunity from this subtle poison. At the commencement of next year a new Act will come into force, which we hope will effectually check the mischief, which is now, annually, throughout the kingdom endangering the life, or at least ruining the health, of hundreds of the poorer classes, and rendering them unfit, for a considerable time, if not permanently, from earning their livelihood, and thus casting a needless burden on the ratepayers. Although we may expect considerable improvement when the new Act comes into operation, still it is of the utmost importance that during the interim manufacturers should be fully impressed with a sense of their

responsibilities. It is therefore to be hoped that every case occurring will be promptly reported to the Home Secretary, and that he will order an inquiry to be made into the circumstances of each case. We have repeatedly pointed out that plumbism can be effectually dealt with if only the proper precautions are adopted. If it were necessary to prove this point, we need only refer to an outbreak that occurred at an electric storage works at the East End last year, and to which we drew attention at the time. In this case, the managers as soon as they became aware of the outbreak promptly called in skilled opinion, and at once adopted the recommendations suggested; since then no further cases of lead poisoning have been reported as occurring among the workpeople at this factory. What can be done by one firm can be done by all, and manufacturers have no excuse to offer, except in rare cases of extreme susceptibility to the action of lead, for the occurrence of this complaint among their workpeople.

DISPOSAL OF THE INSANE.

THE question of asylum extension having arisen at Glasgow, Mr. Maxton, member of a sub-committee appointed to consider the matter, has made a suggestion which involves the adoption of the scheme of accommodation proposed by Dr. Mortimer-Granville, and recommended by THE LANCET, for the counties generally. Mr. Maxton says:—"About one-fifth of the registered patients of any parish, or area of management, requires special medical and other care and treatment. This class should be provided for and treated in royal or district asylums, or in small and well-appointed cottage hospitals, each for not more than forty patients. The remaining four-fifths may be accommodated in inexpensive buildings, with a small number of attendants, and without the formal regulations necessary in an establishment for new cases. This large proportion should also be provided for in specially arranged cottages, having similar accommodation, but built and furnished to realise as far as possible the simple and healthy surroundings attainable in the homes of an industrial population. In his work, "The Care and Cure of the Insane," published in 1877, Dr. Mortimer-Granville wrote as follows:—"Provide in every district a hospital, properly so-called, and thoroughly furnished with all necessary appliances for the physical and moral treatment of insanity. Attached to this hospital, so far as the control of its general arrangements is concerned, construct an institution, or if necessary, more than one, to which patients not either requiring, or likely to be benefited by, active personal treatment, but still needing medical care, may be removed, when, in the course of each individual case, it becomes apparent that this will not prejudice the final chances of recovery. In connexion with the workhouse, or in some appropriate institution—for example, a 'workhouse asylum'—provide wards for the senile and infirm, whose recovery is impossible, and who tarry only for death. This threefold system being efficiently organised, the necessary circulation of cases may be readily maintained, without either indefinitely multiplying costly buildings, or allowing the curative establishment to become blocked against recent and curable, by the stagnation of chronic, cases. There would, moreover, be this great advantage in the plan suggested: the capacity of the *hospital* required in any district could be determined, not on a vague conjecture as to the probable rate of increase in the total number of pauper lunatics, but upon the more definite, and, though neglected, not impracticable, basis of the number of persons becoming insane." We are well persuaded that it is to the *occurring* or 'new' cases authorities charged with the duty of providing asylum accommodation should look. Of the total number of the asylum population as a whole, comprising all classes, one-third—as Dr. Granville told the Select Committee of 1877—would be better placed, and self-supporting, in an establishment somewhat like that at Gheel—that is to say, in what would practically be a village for the insane. This is, practically, the plan Mr. Maxton desires to see adopted in Glasgow. He has our warmest sympathy in his endeavour, and if he can carry it into effect it will, we are assured, be hereafter found that the plan saves money and indirectly tends to raise the percentage of cures. Lunacy work in Scotland has of late taken a great stride forward, and left that in England far behind. What with the "open-door" system, and the *probable* adoption of this common-sense method of providing "asylum accommodation," the policy in progress on the other side of the Tweed must before long attract the attention of all sincere and unprejudiced reformers who are willing and anxious to learn.

MICRO-PARASITES OF FISHES.

As a contribution to the stock of our knowledge of bacterial pathology we give here an abstract of some fresh investigations made by MM. Ollivier and Richet, published in *L'Union Médicale* of Sept. 29th, on the micro-organisms found in the lymph of fishes. By diligent examination these observers were able to detect microbes in the peritoneal, cerebro-spinal, and pericardial fluids, and even in the blood of the heart. There could be no doubt, according to them, that the forms observed were really bacteria, for they possessed undoubted powers of locomotion, or, as the authors put it, of *mobility of translation*. It was found that the bacilli could be cultivated either in the natural lymph or in prepared bouillon. If some lymph and blood be collected with all the necessary precautions no decomposition takes place, even after several months. However, microscopical examination always reveals the incontestable presence of microbes. The maintenance of the limpidity and the absence of putrefaction do not constitute a sufficient proof of the purity of an organic liquid from a point of view of bacteria. A bouillon made from beef, neutralised and filtered several times, then heated in a sealed flask in a stove at a temperature of 105° to 110° for fifteen hours, is and remains a clear pure fluid. Suitable quantities of this were introduced into some sterilised Pasteur's solution with all the essential precautions. At the end of a month no change had occurred. Inoculations were then made with blood or lymph, as above mentioned. Several specimens of blood and lymph had been kept in tubular pipettes. These pipettes were filled with the sterilised bouillon and then sealed at both ends, so that the cultures were rendered almost completely devoid of air. The liquid in the flasks and in the pipettes did not become turbid, even after several months. Nevertheless, at the bottom of the flask a light, small, flocculent deposit could be perceived with difficulty. But the microscope brought to light many kinds of micro-organisms, possessing motility and staining intensely with methyl violet. Multitudes of mobile forms were also to be seen in the tubular pipettes.

FISH IN HOSPITALS.

THE Committee of the Bristol Royal Infirmary have recently adopted the plan of having a fish diet in the house once a week. It is stated that this has effected a great saving in money, and has met with the hearty approbation of the patients and staff. With the exception of the London Temperance Hospital, where this plan has been adopted for some months past, we believe that the Bristol Royal Infirmary is the first to introduce this modification of its dietary. We are glad to learn that the friends of this institution are establishing a superannuation fund for its nurses. Such a scheme must command the support of all who are familiar with the way in which hospital nurses now do their work.

SUICIDE OF A LUNATIC "ON LEAVE" FROM BROOKWOOD.

EITHER Mr. G. F. Roumieu, the coroner who the other day, held an inquest on the body of Edward Parsons, recently an inmate of Brookwood Asylum, does not—with all becoming respect be it spoken—quite understand the limits of his authority, or, being himself properly informed on that not unimportant subject, does not care to correct the misconceptions of his juries. To their verdict in the case of Edward Parsons, the jury assembled at Alford on Saturday last, the 29th ult., appended a rider to the effect that "the authorities at the asylum ought not to have let the deceased out so soon, and that the coroner should inquire the reason from the asylum." Mr. Roumieu must, we are bound to assume, have known when he received this curious mandamus from his jury that he had not a vestige of authority to institute any inquiry of the nature indicated. When the jury has returned its verdict a coroner's inquest or inquiry has already concluded. As a matter of fact, precisely what the jury asked Mr. G. F. Roumieu to inquire *after* the inquest ought to have been asked during its progress. It was unfair to the asylum officers not to inquire the "reason from the asylum" at the time of the inquest. Had such an inquiry been made, and an opportunity offered for explanation, the jury would have had a full statement of the facts before them, and, we venture to think, would scarcely have deemed it desirable to add any rider to their verdict, at least not one which must be regarded as a censure. The deceased was, it seems, admitted to the asylum on the 25th of May last suffering from "religious mania." At the beginning of August he had so far recovered as to be placed at the farm-house adjacent to the asylum; and on Sept. 7th he was discharged, not finally, but on a month's probation, a printed form being given to the friends directing that on the appearance of the slightest symptoms of relapse the fact was to be reported to the relieving officer. No notice was taken of this instruction, and, strangely enough, it does not appear to have occurred to either of two medical men who saw the deceased after the return of bad symptoms but before he attempted suicide, that the patient should be sent back to the asylum. We say strangely enough, because it is to be assumed that every practitioner is aware of the fact that patients are seldom discharged *absolutely* at first; and almost the instant thought would be, "This person is a probationer, and ought therefore to return." If the coroner had conducted his inquest in the usual way, and "inquired the reason from the asylum" during instead of after the inquest, the facts might have been sifted. As it is, an injustice has been done to the medical officers of one of our most prominent asylums—an institution conspicuous for its excellent management—and a wrong impression produced on the public mind.

THE GRAND JUNCTION CANAL BASIN.

WE are glad to find that the Paddington Vestry have taken up the matter of this public nuisance in real earnest, and that they intend to memorialise the directors, with what result remains to be seen. In addition to the insanitary state of affairs referred to in our issue of Sept. 22nd, we learn that a periodical stench caused by the emptying of the canal is increased by the displacement and diffusion of large volumes of sewer-gas, there being no immediate escape-shaft capable of compensating for the inrush of the contents of the canal basin. The committee chosen to represent the vestry before the directors is a strong one, under the chairmanship of Mr. E. Parker Young, and we have no doubt they will do their best to bring about an abatement of the nuisance. It has been suggested that the difficulty might, to a large extent, be met by establishing a continuous current through the basin, or by laying down a bottom of concrete which would allow of the decomposing sediment being rapidly and completely removed each time the water in the basin is drained off. The latter alternative we consider the better, providing it be carried out at sufficiently short intervals. The medical officer of health has now a good opportunity of displaying the zeal and ability requisite in a custodian of public sanitation.

"HOW THE POOR IN LONDON LIVE."

UNDER this heading the *Echo* of Sept. 28th, 1883, published a statement, from which we reproduce the following particulars:—

"Out of 2290 persons, living in consecutive houses at Bow-common, only 88 adults and 47 children attend any place of worship; while in one street, near Leicester-square, containing 246 families, only twelve are said to be represented in church or chapel. The condition of some of their homes is said to be 'pestilential.' To get into them you have to visit courts which the sun never penetrates, which are never visited by a breath of fresh air, and which never know the virtues of a drop of cleansing water. In one cellar was found a father, mother, three children, and four pigs. In another room was a man ill with small-pox, his wife just recovering from her eighth confinement, and the children running about half naked and covered with dirt. In an underground kitchen seven persons were found living, and a little child lying dead in the same room; while another apartment contained father, mother, and six children, two of them being ill with scarlet fever. Immorality is but the natural outcome of conditions like the above. The poverty of many, who strive to live honestly, is described as appalling. In St. George's-in-the-East large numbers of women and children, some of the latter being only seven years of age, were employed in sack-making, for which they got a farthing each, while in one house a widow and her half-idiot daughter were found making palliasses at 1½*d.* each. Another woman, who has a sick husband and child, was found employed at shirt finishing at 3*d.* a dozen, and by the utmost effort can only make 6*d.* a day, out of which she has to find her own thread!"

These are, indeed, disquieting, and it is not too much to say, discreditable, facts. Much has been done to discover, and either destroy or amend, conditions of life so deplorably insanitary, as those described by our contemporary, but it would seem that much more remains to be accomplished. It is manifestly impossible that the poor can live healthily or honestly in such habitations, and by such ill-paid labour as is represented above. It is well that the facts should be known, though they are not less humiliating than sickening. With all our boasted care for the health and happiness of the humbler classes of the population, we are clearly guilty of terrible neglect, or such things could not be. When will the Legislature have time to think of the pressing needs of domestic legislation and the real grievances that lie nearer home even than those of that most troubled and troublesome spot of earth—Ireland?

CHOLERA ISOLATION IN THE METROPOLIS.

MOST of the Poor-law guardians, and of the hospital authorities, within the metropolis have, in answer to the circular letter addressed to them by the Metropolitan Asylums Board, sent in offers of assistance in case London should be invaded by cholera; the several bodies declaring their willingness to place at the disposal of the Board beds varying in number from fifteen to 150. The Clerkenwell guardians, however willing to aid if they can when the time arrives, are unable, in view of their present requirements, to guarantee any specific number of beds. The Holborn guardians, and those for St. Pancras, are the only bodies who have stated distinctly that they cannot co-operate in providing the needed means of isolation. In the

meantime, the *Castalia* is to be transformed into a floating hospital for 100 patients, at a cost of £11,700; and the necessary means of access to it, together with administrative buildings, require further that land, a wharf, and a pier should be provided at an additional cost of £13,000. We fear that floating hospitals, if made reasonably efficient, will turn out to be much more costly than land establishments.

PROFESSOR HUMPHRY'S ADDRESS AT GLASGOW.

THE Inaugural Address by the President of the Congress of the Sanitary Institute of Great Britain, delivered at Glasgow last week, was marked by many important suggestive features, to some of which we may well draw further attention. Professor Humphry's speech was indeed an excellent example of the employment of the method of extension in address-making. This mode of occupying the allotted time of a lecture is naturally opposed to the more profound fashion of what may be termed intension. Both systems have their advantages and disadvantages. Generally speaking the former is characterised by brilliancy, whilst the latter is of a more impressive nature. We cannot but concur in the opinion that good legislation with a view to the improvement of sanitary matters must be recognised as one of the first necessities for a prosperous people; and there is no doubt that the Government of England does tend to lag behind in the business of providing this great need for the welfare of the nation. The State ought to take more active cognisance of the fact that a people must be preserved from the effects of its own imprudence. We see no objection in the central authorities leaving the carrying out of hygienic works to parochial administrations and local authorities, so long as it exercises the necessary amount of control and inspection over the performances of the said local managements. It should certainly be remembered that to be a great people for any length of time health and vigour in the aggregate must be maintained. One of the causes to which the fall of the Roman Empire has been attributed was "the pestilences which swept off the adult male population, and left the then proud mistress of the world an easy prey to the barbarians." With a view to secure the efficient action of the local centres, examinations of sanitary surveyors and inspectors of nuisances should be instituted and thoroughly carried out. The importance of the formation of a separate and competent staff to look after the sanitary condition of towns and villages, of the army and navy, of ships and their cargoes, as well as of cattle and vegetables, cannot be too frequently urged. In order to accomplish this the better representation in Parliament of the medical profession, and more especially of those who make preventive medicine their study, is surely to be desired.

GRAPHIC RECORD OF MOVEMENTS.

AN ingenious apparatus for graphically recording the movements of the hand and fingers under various conditions has been devised by Dr. Francis Warner. It resembles the indiarubber tubing on the backs of cricketing gloves, designed to protect the hand from injury; but the tubes are closed, and not jointed; they are connected by means of small conducting tubes of caoutchouc with a series of tambours; with the tubes is also connected an electric apparatus, by which a bell can be rung when a movement is made and a tracing taken. Dr. Warner believes that by observations made with this instrument the mental development of infants may be followed, the amount, kind, and co-ordination of their movements affording information in regard to the internal conditions of their nervous system. He finds that children are, except when their attention is strongly excited, constantly executing spontaneous movements; but such movements fail in adult age, being replaced by the function of "mentation," or thought. When the function of mentation is lessened, as by fever, the excess of movement often reappears in delirium as subsultus tendinum. In many so-called mental conditions the emotions are expressed by the action of the muscles of the face and hand; in other words, we judge of the condition of the nerve-mechanism whose function is mentation by certain nerve-muscular movements, whose exact record and measurement Dr. Warner thinks his apparatus is well adapted to study. The paper is contained in the second part of the fourth volume of the *Journal of Physiology*.

THE ATTACK ON DR. ROCHARD.

FROM our Paris correspondent we learn that Dr. Rochard, Inspector-General of Hospitals in the French Marine Department, was the victim of a most cowardly attack on Wednesday last, the 26th inst. The doctor had just left his office at the Admiralty, about seven in the evening, and was walking home, when an individual approached and shot him in the back. The doctor hardly believed he was fired at, the sensation he felt being that of a sharp instrument thrust into his body, and he scarcely heard the report of the firearm. Though rather prostrated at the time, he had strength enough to walk to his house, which was hard by, where Drs. Legouest and Leroy de Méricourt were immediately in attendance. These gentlemen found the patient much exhausted, probably from internal hæmorrhage, and they came to the conclusion that the wound was evidently inflicted by a small pocket pistol. No trace of the bullet could be found, but it is supposed to be lodged in the lungs. There was no outlet wound. The patient, considering that his age is about sixty-five, though of a good constitution, is doing as well as possible. Dr. Rochard is greatly esteemed, and it is believed that the individual who fired at him mistook him, as it was rather dark, for someone else he had been lying in wait for. "On going to the patient's house to make inquiries," says our correspondent, "I was glad to find the name of the venerable Ricord, in his own handwriting, on the list of visitors, as he was reported to have been rather unwell."

FORFAR INFIRMARY.

AT the annual meeting of the directors and friends of this institution, held a few days ago, after a favourable medical and financial report had been read, a question came up for discussion which on its general lines has an interest outside Forfar. It appears there are six medical men in that town, that three of these gentlemen are, and have been for many years, medical officers at the infirmary, and that at present, there being no vacancy, a fourth gentleman wishes to be appointed. The question gave rise to an animated debate, but was ultimately referred to a small committee for consideration and report. It may be said, concerning this question, that the practice in other like towns varies very much. In some certain men are selected and serve for life; in others each medical man attends the cases he sends to the infirmary; or, again, a regular retirement of the staff by rotation and at stated intervals, with or without the chance of re-election, gives an opportunity for the infusion of fresh blood. It is, of course, a prime necessity that the patients receive advice which the directors and general public should be satisfied with, but within these lines there is room for various methods, and, except when medical schools are established, the average practitioner should be quite fit to share the responsibility in hospitals such as those in the average county town. These institutions are supported by the public generally, and by every man's patients alike; and in return for these dona-

tions such experience as can be gained in hospitals, where patients are under proper control and observation, should be made available to the greatest number of practitioners for the good of the community generally. Beyond knowing that the present medical officers to the Forfar Infirmary are capable men, and that it is unusual to apply for a position not yet vacant, we have no particular acquaintance with this case; but it would be well in such instances if a regular period for retirement were arranged and acted upon, so that disagreeable incidents like the present might be avoided, and justice done to the different claimants for such distinction as attaches to the office. The retiring men should be appointed as consultants, and should, in these small hospitals, be regularly called upon as such.

LORD DERBY AT LIVERPOOL.

THE Earl of Derby, in presiding at the prize distribution of the Liverpool University College last week, said he had had the honour of personally knowing Charles Darwin in his later days. But great as his admiration was for the work which Darwin had done, the Earl was even more impressed with the modesty and dignified simplicity of his nature. Darwin knew, and could not help knowing, that he had made an epoch in the history of human thought, but never in any human being was there a more entire absence of egotism or self-assertion. Lord Derby also remarked that he heartily agreed with the doctrine that the value of scientific work was not to be measured by what were called its immediate practical results. In fact, he continued, most of his hearers knew that the best of these results had often originated in inquiries which were pursued in the first instance solely out of love for abstract truth.

THE AIMS OF THERAPEUTICS.

AT the Congress of German Naturalists and Physicians, held last month at Freiburg, Professor Liebermeister delivered an address upon the Aims of Modern Therapeutics. He said that owing to the "epoch-making" discoveries upon the nature of disease which have been made within the last decade, great changes were taking place in treatment, which had by no means yet attained their full development. Although theoretically therapeusis is based upon pathology, advances in pathology had not always been followed by a similar advance in therapeutics, and he instanced the fact of the marked transition from the old symptomatological system of medicine to that based on pathological anatomy which occurred early in the century, as leading to no corresponding change in methods of treatment. But as anatomical study increased and physical diagnosis improved, a period of scepticism with regard to the influence of remedies and expectant treatment came into vogue. Regarded by some as a retrogression, this was really a great advance in therapeutics. It was not only the liberation from the dogmatism of the schools and systems, but the opening up of a scientific study of the subject. Then it came about that the anatomical standpoint yielded to the etiological, the recognition of the important part played by micro-organisms in many diseases being the cause of this change. The doctrine of contagium vivum, strenuously disputed twenty years ago, has practically become generally accepted, and prophylaxis is now the first aim in dealing with disease. He pointed out how the pathogenetic organisms may be considered in two great classes—those, namely, which prevail everywhere, and those which require special conditions for their occurrence. In this way he contrasted the poison of pyæmia, septicæmia, osteomyelitis, &c., on the one hand, with those of malaria, cholera, typhus, scarlet fever, and other endemic and epidemic diseases on the other. Measures of prophylaxis were identical with general sanitation and public and personal hygiene. He strongly insisted upon quarantine as protective against the spread of epidemics, and rebuked England for allowing, in the face of the cholera, its mercantile interests to render it blind to the interest of the public welfare of the whole of Europe. When the infective germs have gained entrance into the body, then specific treatment is called for, as quinine in malaria, calomel in typhoid fever, salicylate of soda in rheumatism. Further, there are measures for direct prophylaxis, as in curing a susceptibility to catarrhs, which afford so favourable a soil for the tubercle bacillus. Other methods are the symptomatic and alterative; and, although therapeusis is still largely empirical, the paths along which it must advance have been much cleared by the advance of general medical knowledge, so that there was much to hope for in the future.

AN AMERICAN HOME FOR INEBRIATES.

THE annual report of the President of the Inebriates' Home, Fort Hamilton, N.Y., for the year 1882 is not unsatisfactory. Compared with our own puny and feeble experiments at home, those of Fort Hamilton are on a considerable scale. On the first day of the year there were remaining on the books 131 patients; there were admitted during the year 364, making a total of 495. During the year 4 patients died in the home, 2 were transferred to hospitals, and 1 to the lunatic asylum; 355 left during the year, 131 of whom are engaged in business and doing well; 49 unimproved; 104 have been lost sight of; and 71 were readmissions. The months in which the greatest number was in the home were April (190) and June (182). The nationality of the patients is as follows: United States, 359; Ireland, 73; England, 27; British Provinces, 10; Germany, 12; Scotland, 6; France, 3; elsewhere, 5. As to occupations, the largest number of patients was of the class of clerks. The great majority of patients (426) were males; females, 69. There is a want of accommodation for the better class of females, so that many applications have been necessarily refused. The number of patients received has been less than last year by 23, but the average time of residence has been increased from three to over four months.

HARVEY'S REMAINS.

WE are requested by the Registrar of the Royal College of Physicians to state that the remains of the illustrious Harvey, now lying in the vault under Hempstead Church, in Essex, will be removed (with the sanction of Harvey's next of kin) to the Harvey Chapel, and placed therein in a sarcophagus provided by the Royal College of Physicians. The ceremony will take place on Thursday, October 18th, being St. Luke's Day, and Fellows of the College intending to be present on the occasion must signify their intention to the Treasurer or Registrar of the College on or before Thursday, the 11th inst.

BACTERIA NOT THE CAUSE OF DISEASE.

AT a meeting of the Buffalo Microscopical Club on the 12th ult., Dr. Rollin Gregg read a paper in which he contended that the so-called bacteria of disease were nothing more than so many forms of fibrine. He has made some apparently rather rough-and-ready experiments by boiling blood on the one hand, and allowing it to "rot" on the other. All the forms that have ever been pictured as bacteria were to be observed in the boiled blood. "Rotted" blood showed even still more numerous shapes. In fact, every variety of shape, from a thread to a ring or globe, or any combination of such forms, may be simulated more or less exactly by fibrine in "rotting" blood. Dr. Gregg seems to think that fibrine

contained most, if not all, of the formative forces of the organic world. We give these views that they may be compared with others which have from time to time appeared in THE LANCET. No difficulty in calling up the fallacies to which all positive opinions on this question are liable will be encountered by our readers.

UNIVERSITY COLLEGE HOSPITAL.

DURING the vacation very important alterations have been made in the out-patient department of this hospital. The need of these alterations has been felt for some years, especially in the consulting rooms, where much clinical instruction is imparted to the students. By taking in some of the premises of an adjoining house the area of the consulting rooms has been more than trebled, and their convenience greatly increased. In the surgical department two additional cabinets for the examination of patients have been provided, and these are fitted up with a supply of hot and cold water, and an admirably designed sink to permit of the thorough cleansing of ulcerated legs, &c. In the physician's room additional cabinets have been fitted, and very much additional space for students has been afforded. The rooms are all excellently lighted by skylights, and for the purposes of clinical demonstration no better rooms can be imagined. A very important (perhaps the most important) addition consists in two casualty wards, which are intended for the temporary reception of cases of a doubtful nature. The question of "Drunk or dying?" is one which can often only be satisfactorily answered by a short lapse of time, and these casualty wards are intended to obviate the risks which are inseparable from the necessity of turning doubtful cases adrift as soon as their slight injuries have received surgical care. There are to be two nurses always on duty in the out-patient department, and these will not only be of great service to the medical officers, but they will also help to smooth the way, as it were, for timid patients, especially of the female sex. The alterations which we have been describing were initiated by Mr. A. E. Barker, and to this gentleman and to the secretary and architect undoubtedly much credit is due. The old and present students' dinner, which took place at the Freemasons' Tavern on Oct. 1st, was successful and enjoyable. Mr. Erichsen was in the chair, and some eighty-two guests sat down to table, including Professor Marshall, Professor Flower, and most of the medical professors of the college. The speech-making was small in quantity and good in quality, and was interspersed with some excellent music and singing, in which Drs. Roberts and Beevor and Messrs. Copley, Mason, Jones, and Campbell-Williams each bore their share. A resolution was passed at the dinner to the effect that it was to be considered the first of a new series of annual dinners, and we doubt not that old University men will highly appreciate the annual recurrence of such an opportunity of meeting old friends. We have only to add that the dinner was good, and the dining-room well lighted and ventilated.

PROTECTION AGAINST FIRE AT WORKHOUSES.

IT is gratifying to notice that attention is being at length directed to the need of provision for the protection of workhouses and workhouse infirmaries from fire. In one case recently investigated it was found that, although the apparatus for extinguishing fire was in efficient order, water could not be procured. In other instances, probably, there may be water without pumping apparatus, and elsewhere other defects. As to the preservation of life in the event of a conflagration, that scarcely seems to have been contemplated. Perhaps the lives of paupers, and particularly sick paupers, are not of sufficient value to be worth caring for. The Local Government Board might with advantage take this matter into serious consideration. If a houseful of sick or aged and infirm paupers were to be burned, public opinion would be scandalised, and that, at least, is a calamity it is desirable to avert.

THE VIENNA POLICLINIC.

WE have received the prospectus of classes to be held in connexion with the General Policlinic at Vienna during the ensuing winter session. The subjects include—Medicine with Special Reference to Cardiac and Pulmonary Diseases, by Dr. L. Ritter v. Stoffella; Hydrotherapy and Dietetics in Acute and Chronic Diseases, by Dr. W. Winternitz; the Pathology of Circulation and Respiration, by Dr. S. Ritter von Basch; Diseases of the Larynx, &c., by Dr. J. Schnitzler; Diagnosis and Treatment of Diseases of the Stomach and Intestines, by Dr. L. Oser; Diseases of the Brain and Spinal Cord, and Electro-Therapeutics, by Dr. Moritz Benedikt; Diseases of the Urinary Organs, by Dr. Robert Ultzmann; Surgical Pathology and Practical Demonstrations on Wound Infection, &c., by Dr. A. Ritter von Frisch; Skin Diseases and Syphilis, by Dr. H. Auspitz; Eye Diseases, by Drs. J. Hock, A. Ritter von Reuss, and L. Königstein; Diseases of the Ear, by Dr. Urbantschitsch; Diseases of Children, by Drs. Fürth and Alois Monti; Diseases of Women, by Dr. Ludwig Bandl.

LUND TESTIMONIAL FUND.

THE past and present pupils of Edward Lund, Esq., F.R.C.S., Professor of Surgery at the Owens College, Manchester, are about to present him with a testimonial on the occasion of his retirement from active service as a surgeon at the Manchester Royal Infirmary. The testimonial is to take the form of a portrait, by Mr. J. H. Partington, and plate. As many of Mr. Lund's friends have expressed a wish to join in the testimonial, and as some of his former pupils may not have received a circular, the subscription list will remain open for a short time longer. Communications may be addressed to F. A. Heath, Esq., 118, Portland-street, Manchester, chairman of the Testimonial Committee; or to Dr. Leech, Mosley-street, Manchester, treasurer of the fund.

PROFESSORSHIP OF ANATOMY AND SURGERY, TRINITY COLLEGE, DUBLIN.

AS was generally expected, Dr. Cunningham has been duly elected to the vacant chair of anatomy in the University of Dublin. The lectureship of practical and descriptive anatomy in the medical school of the Royal College of Surgeons in Ireland which Dr. Cunningham vacates will be filled up by the Council on November 1st. The gentleman appointed is expected to devote his entire time to the duties of the office.

THE FOOD AND TOIL OF PAUPERS.

"ONLY a pauper!" This is the keynote of the workhouse policy so generally affected by guardians of the rates—miscalled "guardians of the poor." In most workhouses paupers are fed as cheaply and nastily and worked as hardly as possible. The chief qualifications for official service under the visiting authorities of workhouses are a hard heart and a savage mien. The smallest approach to sympathetic gentleness would render man or woman ineligible for the offices of master, matron, workmaster, &c. Poor folk who have paid "rates" all their lives, until they have unhappily come to be victims of ill-fortune, are treated just as scurvily as the habitually idle and dissolute. The taskmaster compels the pauper, weak and sick though he be, to pick his tale of oakum, and if he fails hails him before the magistrate for punishment. Guardians and overseers exult in this pitiless cruelty. They call it sharpness and economy. It is a pity we do not live under a Government which

could now and then deal personally with these corporate bodies or their members, and send them to feed on workhouse diet until they knew what loathing and hunger mean, and until their fingers were blistered with cruel work.

THE TREATMENT OF INSANITY AS A PART OF THE MEDICAL CURRICULUM.

THE obligation of medical men to be examined in the treatment of insanity has been a subject of discussion in the German Legislature, and the question has been decided in favour of the omission of the proposed test. Certain sections of the medical press in Germany have, however, expressed the opinion that the connexion between mental and corporal disease is in some instances so close that the physician would gain by having at his command a special knowledge of the subject in question. The hope is expressed that in the interest of their professional skill young doctors will not avail themselves of the step which the Government has taken, but will devote attention to mental diseases and their treatment.

FRUIT AS AN ARTICLE OF DIET FOR THE SICK.

THIS question was lately discussed by Professor Reclam in the *Gesundheit*, and in the course of his remarks he laid stress upon the necessity of properly masticating fruit, as much of the prejudice which exists against its use as a portion of a sick person's diet arises from the fact that it is often consumed in a hasty and consequently injurious manner. He excludes from his dietary scale all fruit which is so hard as to require much exertion in masticating it. As to the choice of fruit, he gives copious details as to the relative proportions of acid contained in different varieties. Plums contain the largest quantity of acid and only a limited amount of saccharine matter, although the taste is deceived in this respect by the other component parts of the fruit in question. Ripe red pears form the other extreme of the scale of acidity.

YELLOW FEVER IN MEXICO.

INFORMATION has been received from San Francisco to the effect that yellow fever was causing fearful ravages at Guaymas, in Mexico, and that the inhabitants were fleeing from the country. An opera troupe which had only been in the town for a day or two lost twelve of its members. All places of business are closed, the people are panic-stricken, and the only sound heard in the streets is the rumbling of carts collecting the corpses. It is feared that many of those attacked have been buried alive, as it is believed that the hired Indians to whom the burial of the victims is entrusted are unable to discriminate between the comatose state in which the patients are invariably in when the favourable turning-point has arrived and death itself. At Mazatlan the ravages of the disease are said to be even greater than at Guaymas.

ANTISEPTIC ACTION OF COPPER.

IN an annotation last week we referred to the conclusions at which M. Bochefontaine had arrived, which were to the effect that the salts of copper possessed no power of arresting the growth of bacteria. Now conflicting statements are brought forward by M. Miquel, in a paper badly entitled "The Asepticity of the Salts of Copper." Briefly, the last-mentioned observer finds that the cupric compounds possess powerful antiseptic properties. He compares them with other metallic salts, and finds that they are two to three times more potent than the compounds of lead, uranium, thallium, nickel, zinc, aluminium, cobalt, manganese, &c.; but they are inferior to the soluble preparations of platinum, gold, silver, and mercury. Many more facts of comparison are stated, for which we refer our readers to *L'Union Médicale* of Sept. 27th.

THE REPORTED OUTBREAK OF YELLOW FEVER AT NAPLES.

THE malady which has broken out at Torre Annunziata, near Naples, has been traced back to June last. Early in that month a man attacked by fever, accompanied by jaundice, died. Since then fifteen other cases have occurred, in all of which the first symptoms were jaundice followed by high fever, great prostration, and stupor. In no case did vomiting occur. Professors Semmola and Petronio have, it appears, made several post-mortem examinations, and state that they cannot recognise any of the characteristics of yellow fever. They found, however, enlargement with ulceration of the spleen, and great fluidity of the blood, and describe the malady as a serious form of jaundice caused by infection.

INTERNAL BURNS FROM FIRE-DAMP.

SOME miners who have had the misfortune to be involved in an explosion whilst working have died, not immediately, but some hours afterwards. It is popularly said that they have swallowed the fire. A common explanation of the delayed death is offered in the supposition that the interval of delay is occupied in the development of the bronchitic inflammation which leads to the fatal asphyxia. From a microscopical examination of the lungs of some victims of mine explosions, as well as of experiments carried out on dogs and rabbits by M. Riembault, it would appear that the proffered hypothesis does not hold good.

DR. E. FRANKLAND, in his report to the Secretary of the Local Government Board relative to the results of the chemical analysis of the waters supplied to the inner, and portions of the outer, circle of the metropolis during the month of August, says that the water supplied by the five Companies drawing their supply from the Thames maintained the same average quality as in the four preceding months, being for river water exceptionally free from organic matter. The deep-well water furnished by the Kent and Colne Valley Companies was of its usual excellent quality for drinking; and the Colne Valley Company, by softening their supply with lime, thereby rendered it also well fitted for washing and all other domestic purposes.

A SERIES of thermometric observations on patients suffering from uncomplicated fractures has been recently made by Dr. Grundler. He found that in every case but one of those examined a rise of from 2° to 4° F. above the normal, and that the degree of fever is in proportion to the size of the broken bone and to the degree of extravasation. The highest temperature observed (102·5°) was in a case of fractured femur, and the lowest (100·5°) in fracture of the forearm. The rise began on the evening of the first day, and reached its highest point on the evening of the second to the fourth day.

THE use of impure water for drinking purposes has been fully recognised as a fruitful source of disease in humankind. But much carelessness has been shown as to the necessity of providing cattle with pure water. This is a point to which the loss and inconvenience arising from the prevailing cattle epidemic may perhaps direct deserved attention.

IT is too soon yet to speak accurately, but it is estimated that the collections this year for the Hospital Saturday Fund will exceed £10,000.

THE visit of Professor Lister to Pesth has given the professors and students of the medical faculty of the University an opportunity for testifying their high appreciation of the value of the scientific work of the eminent surgeon. A banquet and torchlight demonstration in his honour and enthusiastic expressions of admiration for the benefits he had conferred on mankind were forthcoming to prove the sincerity and earnestness of the homage offered to the professor by the Æsculapians in the Hungarian city.

A CONSIDERABLE number of cases of lead poisoning having occurred in the Ebbw Vale and the Tredegar urban sanitary districts in Monmouthshire, attention has been directed to the water delivered to those places, and certain samples have exhibited lead in excess. Since this water-supply has hitherto borne a high reputation for wholesomeness, it is supposed that the contamination is due to some local or accidental circumstances, and with a view to their discovery a series of analyses are being made.

THE Municipal Council of Paris has voted three million francs, to be expended in increasing the hospital efficiency of Paris. Two-thirds of this sum are to be expended upon the large institutions which already exist. The remainder constitutes the first instalment for the erection of a hospital for contagious diseases, one for chronic diseases, and one for juvenile incurables.

WE learn with regret that the health of Dr. M. Charteris, Professor of Therapeutics and Materia Medica in Glasgow University, has broken down from overwork. It is expected that it will be some time ere he will be able to resume duty; in the meantime he is having complete rest among friends in the south of England.

IN a recent number of *La Loire Médicale*, Dr. Duchamp describes a successful operation in a girl of eight and a half years of age for the removal of the left ovary with the greater portion of the Fallopian tube. The child was anæsthetised while asleep; the operation lasted three hours, and perfect relief was the result.

ACCORDING to a telegram from Alexandria, dated the 2nd inst., no deaths from cholera have been reported in that city for two days, and only a dozen in the whole of Egypt. In Bombay, too, the epidemic is considered to be over, there having been only ten deaths from sporadic cholera during the week ending the 2nd inst.

THE centennial anniversary of the establishment of the medical school of Harvard University will be celebrated on October 17th. Dr. Oliver Wendell Holmes will deliver an oration, after which the new buildings recently erected for the college will be opened.

A COPY of a notice issued by the Portuguese Government, declaring the ports of Peru infected with yellow fever since August 1st, has been received by the Board of Trade through the Foreign Secretary.

THE Medical Schools in London are better supplied with subjects than in most previous years.

WATER-SUPPLY FOR QUEENSTOWN.—The Queenstown Town Commissioners have adopted a resolution in favour of the proposed new supply from Tibbotstown, and have applied to the Local Government Board for a loan of £30,500. This sum is intended to enable the Commissioners to purchase the Queenstown Water Company's undertaking, and to carry out the Tibbotstown supply.

THE INDIAN MEDICAL SERVICE.

AN amended memorandum "regarding the position of medical officers to be appointed to Her Majesty's Indian forces" has just been issued from the India Office, with the object, apparently, of removing the grounds for the charge which has been so urgently and, we think, so unfairly advanced against the authorities of intentionally misleading candidates on the subject of the pay and allowances to which they will become entitled on joining the service. On a comparison of this with the memorandum on the same subject, dated June, 1883, the following appear to be the chief alterations:—The pay of medical officers after passing the final examination at the Army Medical School is stated at 10*s.* a day "until arrival in India," instead of, as formerly, "until date of embarkation." This, however, is probably more an apparent than a real difference, as a subsequent paragraph in the June memorandum stated that "on first appointment they will only come into receipt of Indian pay and allowances from the date of their arrival in India." No provision appears to have been made for their pay during the time they were on board ship. A new clause is introduced to the effect that medical officers are required to perform two years' regimental duty in India before they can be considered eligible for civil employment. We believe this has long been the rule, and it is much better that it should be thus recorded in the conditions of service. One of the important differences between the two documents is the introduction of a distinct intimation that the passing of the examination in Hindustani, known as the "lower standard," does not of itself bring any increase of pay to an officer unless appointed to a substantive or officiating charge; but failure to pass disqualifies an officer, even when holding such substantive or officiating charge, from receiving any portion of the staff allowance of the appointment." The wording of the regulation in the previous memorandum was so ambiguous that many officers considered it to imply that on passing the "lower standard" they would become entitled under all circumstances to an increased rate of pay. Another important change is made in the form of a note on the subject of "Substantive and Officiating Charges." Medical charges are of two kinds, substantive and officiating. The first is held by an officer as his fixed and permanent appointment. For this he is entitled to the monthly consolidated pay laid down in the scale, "subject to the condition of having passed the 'lower standard.'" "An officiating charge is held by an officer who is acting temporarily in an appointment during the absence of the officer whose substantive charge it is. The officer thus officiating receives, not the consolidated pay of the appointment laid down in the scale, but the ordinary Indian pay and allowances of his own grade, plus half the allowance of the appointment in which he is officiating. An officer's staff allowance is the difference between his 'ordinary Indian pay and allowances' and his consolidated pay as given in the scale. The staff pay of an appointment is the difference between the Indian pay and allowances and the consolidated pay of the permanent incumbent. It has been ruled, however, that the extra allowance for an officiating charge shall never be less than 100 rupees per mensem." The half of the allowance thus deducted from the officer holding an officiating charge is drawn by the officer in whose place he is officiating, if the latter is on furlough, but it is not stated what is done with it when he is absent from any other cause. It seems, hard, however, that the officiating officer should receive only half of what is deemed the proper remuneration for the service he is called on to perform. In the Army Medical Department, except in the case of absence on sick furlough, the full amount of "charge money" is drawn in the administrative grades by the officer who does the duty. The whole

system of staff pay when in medical charge of a regiment seems to us to be a remnant of the olden times, and inconsistent with the arrangements of the army under its present organisation. It cannot but hamper the working of the station hospital system, and open a door to favouritism in giving appointments entitling the holder to staff pay. We regret to find that no steps have been taken to remove a grievance which has been loudly complained of, that of officers having to pay their own travelling expenses to all appointments in which they draw higher pay—a proceeding which appears opposed to all the principles of justice, and in many cases inflicts a serious injury upon the officer. The memorandum just issued lays down clearly the rates of pay and allowances to which medical officers will be entitled on joining the Indian Service, and it remains to be seen whether they will prove a sufficient attraction to the rising members of the profession to induce candidates to come forward in numbers adequate to keep up the establishment of what has hitherto been the most popular of the public medical services. Until the number of medical officers has been considerably reduced for whom permanent charges entitling them to staff pay cannot be provided, or some other mode of compensating them has been adopted, we fear the inducements will not be considered sufficient to obtain for the service the most desirable class of candidates.

SANITARY INSTITUTE OF GREAT BRITAIN: GLASGOW CONGRESS.

THE proceedings of Section 2, "Engineering and Architecture," were commenced on Thursday, Sept. 27th, by an address from the President, Prof. Roger Smith, on "London Dwellings." At first sight it seems rather *malapropos* to lecture to Glasgow people about London dwellings, but the subject was treated with so much literary grace, and developed so many principles, that Prof. Smith proved not only fascinating, but philosophic and instructive. After an historical introduction, he traced the legislative and economical or financial conditions under which the London houses are developed. The conclusion was inevitable from these conditions "that there is absolutely no one whose permanent interest it is that the buildings shall be sound, sweet, and safe to occupy. The original landlord is sure of his ground-rents, and has no further interest; the middleman, when he exists, and the builder, at any rate, seek to release themselves from any connexion with the property at an early day; and the unlucky tenant, still more unlucky if he has bought the lease of his own house, finds that there is no one to whom he can turn for any redress or remedy, whatever goes wrong." The cure for this brings us back to the same point to which the quest for the solution of many social difficulties at the present time leads—the original source of the land. The lecturer, and more emphatically Dr. Carpenter in proposing the vote of thanks, declared that the system of building-leases could produce no better results. Prof. Smith introduced the subject of flats and tall tenements as the only means of providing for the working classes; and this may be said to have proved the burning question of the Congress. Glasgow has good reason to believe that it knows something of flats, and narrow streets, and tall overhanging tenements, as elements in a system of crowding the population. We know that we have had to carry out expensive improvement operations, and that our wynds and vennels were "twenty feet streets" with "dwellings seven storeys high," such as those which the writer of the next paper told us he had seen in London, and deplored that under our local Act he could not build here. The title of this paper is sufficiently startling, "The Advantages of Low Ceilings in Small Houses." Mr. Honeyman is a local architect of the highest professional position and social worth. But a seven-storey tenement in London, reared as an exotic by a philanthropic company with scrupulous care and skill in all its arrangements, carefully stocked with select tenants, who are paternally supervised, is one thing; and seven-storey tenements run up in streets and lanes on commercial principles, in the construction of which, as in that of the ordinary "London dwellings," "the architect is nowhere" (to quote Professor Smith), let to all and sundry without selection, occupied without supervision, and maintained on the cheap, are quite other things. Unfortunately Dr. De Chaumont and Dr. Corfield were not present to discuss this paper and rectify its errors as to the ventilation of apartments; and architects evidently kick at legislative interference with the practice of their profession, so that it appeared as if the Legislature gave its sanction to doctrines which run counter to the dearly bought experience of Glasgow. It did seem inconsistent to hear from the same lips of the unconscionable doings of the jerry-builder, of the fact that the architect is nowhere in tenement building, and of the evils of restrictive legislation as to the details of buildings which are related to health. The next paper, on "Some Sanitary Aspects of House Construction," by Dr. William Wallace, the well-known analytic chemist, brought us back, with increased respect, to the first principles of sanitation; such as the necessity of sunlight in our streets, and the difference in the amount of sun in streets of different relative width and height of house, averaging for this latitude a height not exceeding two-thirds of the street's breadth. The testing of drains and soil-pipes, the merits of various forms of watercloset, a humorous paper by Mr. H. 'H. Collins, the ventilation of sewers, and the scavenging of towns were the subjects which occupied the remainder of the day.

In the evening the Congress assembled to hear Dr. Richardson discourse on "Felicity as a Sanitary Research." This was poetry after prose, nectar and ambrosia after the funereal baked meats of the day. With that mellifluous flow of language and subtle vein of thought of which the lecturer is master, he started with the question whether sanitarians have not only added to the duration of life, but made it happier. One could not help wishing that he had adhered to this term and spoken of happiness rather than felicity. The proofs of felicity in children, in persons of a happy disposition, in "flashes" which come to all at times, in the visible carriage and expression, the physical conditions which influence it, the effects of food, drink, and narcotics, of temperaments and heredities, of sensational and moral influences, practical designs for work in the promotion of felicity, such were the main lines of the address. We have seldom listened to anything more effective, more touching or eloquent than the passage towards the close of the address, descriptive of the position in relation to all that the favoured few regard as essential to happiness of the "twenty-five millions of the people." "Yet we wonder why they are peevish, reckless, melancholy, sometimes drunken, sometimes rebellious, and ready to run after any leader who shall promise to lead them into a happier sphere, however little removed from that in which they are."

Of all the celebrities brought to Glasgow by the Congress none excited more interest than Dr. Angus Smith. He is a native of the city, and so noted for his ant-like patience in the collection of facts and his serene thought about them, that his address was looked forward to with great interest. The miserable acoustics of the hall combined with the feebleness of Dr. Smith's voice to make the listening to it more laborious than entertaining, but the reading of it carefully amply repays the trouble. "Air as a Sanitary Agent" is the title; and the first and central idea is Pasteur's discovery of the attenuation of virus by the action of the oxygen of the air. This observation was allied to the smell of close and musty places, and the impossibility of removing that smell by simply removing the contained air. Only long perflation will do that. Every surface exposed to organic exhalations yields ammonia when washed. This is the cause of the closeness. The oxygen either entirely destroys organic matter, or maims the germs which propagate disease. This process is putrefaction ending in thoroughoxidation. Hence the Clyde, with its free movements, natural and artificial, and ample access of air, is ascertained not to spread disease, while confined sewer gases are known to do so. These processes are the grand agencies by which the world is rid of germs of disease, microbes, bacteria, and all the tribe of minute organisms. "The germ theory of disease has caused alarm in many directions, and it has been imagined that some little germ of disease passing into a sewer or pure river might carry with it power to infect other organisms to such an extent that there was reason to fear for the lives of all inhabitants on its banks. This extreme application of a theory might not be unreasonable were it not

that we know from results that no such power exists in any of those germs known to us." Dr. Smith dwelt at length on the projects of his late friend Mr. Young, of Kelly, to recover the ammonia from sewage. He found that by an exhausting air-pump acting on sewage heated to about 80° Fahr. by steam injected and containing five grains of ammonia per gallon, it was almost entirely deprived of it in a few minutes. No abstract will give any conception of the fertility of this address.

Next day the work of the section began with a paper by Dr. Wallace on "The Comparative Merits of Fine and Coarse Flour as Articles of Food;" it stated that the working classes of Glasgow will not eat bread made from home-made flour, but insist upon Hungarian flour, which yields less than half the proportion of ash (·38 instead of ·85 per cent.) The gravity of the fact is increased when we remember that this is a further remove from the national dish—porridge. Dr. Adams on Disinfection, Professor Robinson on River Pollution, and Mr. Coles on Smoke Abatement, filled up the programme; and a public dinner, Professor Humphry in the chair, with Dr. Russell and Mr. Cleland Burns as croupiers, finished the day but not quite the Congress. This had a bright and picturesque ending on Saturday in an excursion through the winding beauties of the Kyles of Bute, and up Loch Fyne on board the well-known *Columba*. The party got back in time to permit several of their number to appear on the platform with Dr. Alfred Carpenter when he gave the usual address to the working-classes. To the scientific knowledge of the medical sanitarian Dr. Carpenter unites the acquaintance with municipal politics of the town councillor, and when to this is added his silvery eloquence, you have the beau ideal of the man to lecture the ratepayer on the profit he derives from sanitary expenditure. He was rapturously applauded while he warned his audience against candidates who asked their votes on the ground of retrenchment in that direction. Those acquainted with local politics observed at least one gentleman who stands in the Town Council upon this platform, and remarked that he did not seem to be in a state of "felicity!"

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IT appears from the results of the College examinations, which are shown in the new calendar just issued, that during the collegiate year ending Midsummer Day last the Board of Examiners in Anatomy and Physiology for the diplomas of Fellow and Member has held seven meetings for the fellowship and forty-five meetings for the membership; 68 candidates passed the first examination for the fellowship, and 54 were referred for six months. For the primary examination for the membership 1119 candidates were examined, of whom 795 passed, and 289 were referred for three and 35 for six months. During the year the Court of Examiners for the diplomas of Fellow and Member has held two meetings for the examination for the fellowship and forty-one meetings for the pass examination for the membership; 17 candidates passed the examination and were admitted Fellows of the College, and 17 were referred for twelve months. Of the 769 candidates who were admitted to the pass examination for the membership, 343 obtained the diploma, 145 were approved in surgery, to qualify in medicine and midwifery, 92 of whom did so qualify, making the total number of diplomas granted in the year 435; the remaining 281 were referred as follows: 44 for three, 224 for six, 10 for nine, and 3 for twelve months' further professional study. There have been three meetings of the Board of Examiners in Dental Surgery during the year; 25 candidates have been examined, 23 of whom passed.

A DINNER for the reunion of old students and officials of the Meath Hospital and County Dublin Infirmary will be held on Monday, November 5th, at the Shelbourne Hotel, Dublin, at which Sir George Porter, senior surgeon, will preside. Dinner tickets, for which application must be made on or before October 29th, may be had from the hon. secretaries, Messrs. Lambert H. Ormsby, Charles M. Scott, and Frank P. Newell.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5358 births and 3154 deaths were registered during the week ending the 29th ult. The annual death-rate in these towns, which had been 19·3 and 19·6 in the two preceding weeks, declined last week to 19·1. During the thirteen weeks ending last Saturday the death-rate in these towns averaged 19·9 per 1000, against 20·5 and 20·6 in the corresponding periods of 1881 and 1882. The lowest rates in these towns last week were 14·1 in Leicester, 15·2 in Derby, 15·4 in Bristol, and 15·4 in Huddersfield. In the other towns the rates ranged upwards to 25·2 in Hull, 26·1 in Liverpool, 28·6 in Preston, and 33·2 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which in the three preceding weeks had been 763, 647, and 606, further declined last week to 563; they included 279 from diarrhœa, 102 from scarlet fever, 55 from "fever" (principally enteric), 49 from measles, 44 from whooping-cough, 26 from diphtheria, and 8 from small-pox. The lowest death-rates from these zymotic diseases were recorded last week in Norwich and Plymouth, and the highest in Preston and Newcastle-upon-Tyne. The deaths attributed to diarrhœa, which had been 463, 314, and 267 in the three preceding weeks, were 279 last week. This disease was three times as fatal in the provincial towns as in London, and caused the highest death-rates in Bolton and Preston. Measles showed the largest proportional fatality in Newcastle-upon-Tyne; scarlet fever in Sheffield and Leeds; and "fever" in Salford and Halifax. The 26 deaths from diphtheria in the twenty-eight towns included 19 in London, 2 in Bristol, and 2 in Salford. Small-pox caused 4 deaths in Birmingham, 2 in London, and 2 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals, which had been 58 and 57 on the two preceding Saturdays, was 60 at the end of last week; 9 new cases were admitted to these hospitals during the week, against 8 and 10 in the two preceding weeks. The Highgate Small-pox Hospital contained 4 patients on Saturday last, 1 new case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 157 and 167 in the two previous weeks, were 163 last week, and 59 below the corrected average. The causes of 83, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Birmingham, Leicester, Plymouth, Nottingham, and Derby. The proportions of uncertified deaths were largest in Bristol, Sunderland, Birkenhead, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which in the three preceding weeks had been equal to 19·0, 19·7, and 20·0 per 1000, further rose to 20·6 in the week ending the 29th ult.; this rate was 1·5 above the mean rate during the week in the twenty-eight English towns. The rates in the Scotch towns ranged from 17·6 in Leith and 18·1 in Aberdeen and in Paisley, to 22·2 and 24·7 in Glasgow and Greenock. The deaths in the eight towns included 94 which were referred to the principal zymotic diseases, showing a slight further decline from recent weekly numbers; 31 resulted from diarrhœa, 23 from diphtheria, 18 from whooping-cough, 12 from scarlet fever, 6 from measles, 4 from "fever," and not one from small-pox. These 94 deaths were equal to an annual rate of 4·0 per 1000, which was 0·6 above the rate from the same diseases in the large English towns. The highest death-rates from these diseases in the Scotch towns last week occurred in Glasgow and Dundee. The 31 deaths from diarrhœa showed a slight increase upon the number in the preceding week, though they were below the number returned in the corresponding week of last year; 14 occurred in Glasgow and 5 in Edinburgh. The fatal cases of diphtheria, which had been 20 in each of the two previous weeks, rose to 23, of which 7 were recorded in Glasgow and 6 in Dundee. The 18 deaths from whooping-cough showed a considerable increase upon the numbers in recent weeks, and included 10 in Edinburgh. Of the 12 fatal cases of scarlet fever 9 were returned in Glasgow, where also all the 4 deaths from "fever" were

registered. The 6 deaths from measles occurred in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns showed a decline of 5 from the number returned in the previous week, and were considerably below the number in the corresponding week of last year. The causes of 82, or nearly 17 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which in the two preceding weeks had been equal to 27·5 and 24·9 per 1000, further declined to 23·7 in the week ending the 29th ult. The mean death-rate in the city during the thirteen weeks of the quarter ending on Saturday last was 22·8 per 1000, against 16·6 in London and 18·8 in Edinburgh. The 159 deaths in Dublin showed a decline of 8 from the number in the previous week; they included 11 which were referred to diarrhœa, 10 to scarlet fever, 6 to "fever," 2 to whooping-cough, and not one either to small-pox, measles, or diphtheria. Thus 29 deaths resulted from these principal zymotic diseases, against 38 and 24 in the two preceding weeks; they were equal to an annual rate of 4·3 per 1000, while the rate from the same diseases was 2·5 in London and 4·0 in Edinburgh. The 11 deaths from diarrhœa corresponded with the number in the preceding week. The fatal cases of scarlet fever, which had been 8 and 4 in the two previous weeks, rose to 10, a higher number than has been returned in any week since the end of 1880. The deaths from "fever" showed a further increase upon those recorded in the two preceding weeks, while those from whooping-cough showed a decline. The deaths of infants were considerably fewer than those returned in any recent week, while those of elderly persons showed a marked excess. The causes of 35, or 22 per cent., of the deaths registered during the week were not certified.

CORK.

During the four weeks ending 8th September, the births registered amounted to 156, a number equal to a rate of 25·0 per 1000. The deaths came to 111, or a mortality of 18·0, but excluding 16 which occurred in the workhouse, and therefore outside the district the rate was 15·0. The mortality from zymotic diseases was only 0·1 per 1000.

Correspondence.

"Audi alteram partem."

"HOSPITAL CONSTRUCTION."

To the Editor of THE LANCET.

SIR,—In thanking you for your kindly notice in THE LANCET, of Sept. 29th, of the joint work of Mr. Snell and myself on hospitals, may I beg the favour of a word or two, to remove some of the misapprehensions entertained regarding it. The first part was published somewhat hurriedly, in the hope that it might be of some service to the hospital conference in London of July last. In its necessarily incomplete form it was unaccompanied by a table of contents and index—a want that could only, and will be, properly supplied when the work is completed. In the concluding part will also be found a *résumé* of the whole subject by Mr. Snell and myself, each from his own standpoint, when we trust that all doubts as to our views and opinions, based upon a very careful study of the whole subject, will be dispelled. That Mr. Snell and I have not worked under the same yoke to secure chiefly logical connexion and harmony in our views is true, and I must plead guilty to the charge, and accept the entire responsibility for the adoption of this procedure.

I did it advisedly. I considered that as principles and practice run in parallel lines, and ought to do so, it was better to keep them apart than to attempt to weld them too closely together. In this manner we each have had more unfettered action than would otherwise have been possible, and I have designedly left every detail of construction and arrangement in their strictly architectural relations to my skilled coadjutor. He has consequently been able to work them out from the types which he has selected for illustration, without subordinating them in any way directly to the principles regulating and underlying them. In the additional types which Mr. Snell has in hand for Part II., examples of recently built hospitals in other countries than those already illustrated will be given, so as to render the work a complete guide in this very important branch of the question.

With reference to the belief that I am an advocate of one-storeyed pavilions in large towns, I am not so prejudiced in their favour as to suppose that many-storeyed buildings can be altogether dispensed with in densely populated cities, when and where they are urgently needed, and where the excessive cost of land is prohibitory of the prodigality of space requisite for the most perfect types of hospital construction, according to the advanced views of the most eminent authorities on the subject. I have myself given a brief account of the most perfect example of such a hospital that I have yet seen in any country, the New York Hospital. In your own pages, two years since, you most kindly permitted me to publish a plan of such a hospital, drawn up for me by Mr. Lawrence Booth of Manchester. In both of the above the cardinal defects of the old types of quadrilateral hospitals are, I think, successfully dealt with and removed as far as practicable in a rigidly restricted area.

The excellent form of hospital designed by Mr. Waterhouse and Dr. Poore, as well as the artistic and elegant plan of Professor Marshall for the rebuilding of University College Hospital, are models of constructive skill in adapting old works to new views. There is not one of these that I would not willingly accept where the conditions of site and surroundings were as imperative as much less than £20,000 an acre would imply.

With respect to Friedrichshain, I may remark that it is not a town hospital in the sense above mentioned. It is situated in the outskirts of Berlin, in a beautiful enclosure, immediately adjoining a large park and pleasure-ground. When again conducted over it, after an interval of some years, with Mr. Snell and the architect of the Local Government Board, by the illustrious Virchow, a few weeks since, the air laden with the perfume of flowers, and the repose of the spot broken only by the song of the nightingale, I confess that I was willing to follow, even blindly, the greatest living authority on the question. The subject has not yet been studied as carefully and thoroughly in England as it has been of late years in Germany and France; and I cannot concur with my friendly reviewer that in following their lead, until we have struck out a path of our own, there is anything derogatory to us, or tending to a presumption of finality or perfection, which will never be attained so long as the world continues to advance in a knowledge of science, and of its application to the relief of suffering.

I am, Sir, yours, &c.,

Oct. 1st, 1883. FREDERIC J. MOUAT, M.D.

THE FEE-SYSTEM OF THE SCOTCH UNIVERSITIES.

To the Editor of THE LANCET.

SIR,—Since you have permitted your Edinburgh correspondent to make a personal attack upon me in connexion with my address to the British Association at Southport, I trust you will allow me to reply to him in your columns. I am not aware of any circumstance in connexion with my appointment to the Regius chair of Natural History in Edinburgh which should prohibit me from pointing out what I consider to be grave defects in the present management of the Scotch Universities. Indeed, as I happen to be specially familiar with those defects, and to have been caused, in common with my friends, an extraordinary amount of inconvenience in consequence of their existence, it seems to me that it is my duty to express my opinion in regard to them. It appears to be not impossible that the compulsory system of attendance and fee-payment in Scotch Universities may be abolished at no distant date, and were this done, whilst at the same time a really sufficient endowment (£800 to £1000 a year) was assigned to each chair, on condition of its occupant devoting all the time which he does not give to teaching to research in the laboratory or study, nothing could be, in my opinion, more satisfactory. The fees might be reduced to £2 2s. for a course of lectures, and £4 4s. might be charged for courses of practical instruction,

or for exercise classes carried on under the professor's direction by a number of assistants, *who should receive the whole of the latter fees.*

On the other hand, to abolish the compulsory attendance and fee payment without assigning any compensating stipend to the professor, as is proposed in some quarters, would be simply disastrous. It was owing to the fact that power was taken in the terms of my recent appointment to proceed in this manner that I felt unable to enter upon the arduous task of reorganising the teaching of zoology in the University of Edinburgh, which had been of late years neglected, as the result of the unfortunate illness of the late Sir Wyville Thomson.

Further, it appears to me that should the compulsory attendance and fee payment be maintained, it would be most desirable (on the understanding that the power to make a sudden and disastrous change of system is no longer claimed by the Crown officials) that the fees at present paid to each professor should no longer be so paid, but should be received by the University itself—a certain proportion being then handed over to the professor, another proportion to the assistants employed by him, and another proportion (supplemented by an equivalent payment from the University chest) to the maintenance of laboratory, purchase of diagrams, apparatus, and specimens. Such a distribution of the total sum of his fees is at present carried out by the professor; but it would be more satisfactorily carried out by the University under definite enactments, since at present it is customary for the professors to assign too small a proportion to the payment of assistants.

I most thoroughly agree with those who consider that the assistants of Edinburgh professors should receive better pay than they do at present, and that they should be more numerous in proportion to the number of students in a class. I would, out of a fee income of £1500, assign £500 to assistants and £100 to apparatus; out of £2000, respectively £700 and £150; out of £3000, respectively £1200 and £200. In this way alone is it possible to do justice to the students of large classes. It was my intention voluntarily to adopt these proportions in the expenditure of fees had I been offered a secure position in the University of Edinburgh; but it would, no doubt, be easier to accept such a docking of the fee income as a result of legislative enactment than to impose it on oneself. With the sword of Damocles over one's head, as now adjusted to the Regius chairs, such self-denying policy is clearly rendered impossible.

I am, Sir, yours faithfully,

London, October 1st, 1883. E. RAY LANKESTER.

HOLIDAY EXPERIENCES IN THE COUNTY OF HANTS.

To the Editor of THE LANCET.

SIR,—It is something like a quarter of a century since as "Our own Correspondent" in Paris I posted my last letter to the address of THE LANCET. Despite the length of this interval, knowing of old that your kindness has no statute of limitations, I venture once again to send you a few lines for publication bearing on recent holiday experiences in the county of Hants.

When looking round this spring for suitable summer quarters I heard through a friend of a house at Boscombe, between Christchurch and Bournemouth, which I secured on easy terms. The advantages of this locality for winter residence are undoubted, but I was not prepared to find in July and August, within a three hours' run of London and in the reputedly soft climate of the New Forest fringe, air tonic and pick-me-up as that of our best northern health-resorts. My first resolve on discovering Boscombe was, bearing in mind Christopher Columbus's snubbing, to keep it dark and enjoy the benefits accruing therefrom, as did Cartouche his honey-pots, thankfully but silently. It appeared, however, that the discretion of the junior members of the family was not to be relied on ("on n'est trahi que par les siens"), and that my plan might be upset by the ill-timed candour of the "enfant terrible," whereupon I resolved to tell the story myself, and with your permission in the pages of THE LANCET. Boscombe then—the valley of the wood (*bosc*) or linden (*bass*)—is half an hour's walk from the town of Bournemouth in an easterly direction, a ravine, the chine, intervening. It consists of a sandy tableland overlying gravel, 140 feet above sea level, thickly planted with pines, pinasters, and other conifers about sixty years old, having an undergrowth of heather and ling from which one is always expecting a grouse-cock to bound with a "Cra, cra, cra," and go skimming away over the purple knolls into the distance. The aspect of the plateau is southerly. The sea view to the eastward is bounded by Christchurch head and the white bluff of the Needles; to the west by that stretch of the Dorset coast which fines off to a point at "Old Harry," while the fresh open Channel fills in the midspace. The sea is rarely calm and still. This part of Hampshire owns a double tide, thanks to the Isle of Wight and the Southampton estuary, and the constant churning and clashing caused by the two currents fill the air with pulverised brine. On shore the wind, whatever its direction, filters through the pines and reaches one laden with resinous aroma; so thick is the leafage of the woods, "qu'ils font triple fonction: ils vous servent de parasol, de parapluie, de paravent." Whilst underfoot you tread on an elastic carpet of moss and pine-needles, springy as a French sommier. Two days before arriving at Boscombe I had been inhaling the light air of the Taunus, and my first exclamation on reaching my Hampshire domicile was, "How like Homburg," an impression which further acquaintance deepened and confirmed, stirring up meanwhile a doubt as to whether if I had not gone so far as Nassau I should have fared less well. Knowing the difficulties attaching to questions of priority, I waive all special claims in regard to Boscombe, the more so as I believe that some other discoverer has already forestalled me, and from the fact that land which thirty years ago fetched £15 an acre now realises £2000, I fancy that particular Columbus must have himself been "un véritable enfant terrible."

I am, Sir, your obedient servant,

Brook-street, Sept. 27th, 1883. J. D. CHEPMELL.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

DR. HEATH'S ADDRESS.

THE inaugural ceremony in connexion with the opening of the winter session of the University of Durham Medical College was held on Monday, and passed off with success, there being present, besides a good attendance of students, many of our leading citizens, private and official. Much sympathy was expressed for the Registrar, Dr. Luke Armstrong, who has just passed through a dangerous illness, but is now happily on a fair way towards recovery, and may shortly be expected to join his colleagues in the work of the college. The President, Dr. Heath, in his opening remarks, expressed his gratification on seeing so large and distinguished an audience, and alluded to the crisis which had occurred in the affairs of the college. Since he last addressed them, the North-Eastern Railway had notified that they required the site of the present building to enlarge the central station; their neighbour, the College of Science, had also received a similar notification; and thus before next October it was highly probable that the colleges would be compelled to quit their present location. In conjunction with the College of Science, they were now in search of a site whereon to raise a building suitable for the joint purpose. Dr. Heath went on to speak—and his gifted eloquence was frequently applauded—of the great necessity there was in an important centre like Newcastle, teeming as it does with an industrial neighbouring population of more than two millions, for a building worthy of the place, and similar to the splendid and spacious edifices existing at Manchester, Liverpool, and other provincial cities. Mr. Joseph Cowen, our senior M.P., next delivered his inaugural address, and distributed the prizes to the successful students amid much applause. His address will doubtless come under your immediate notice, so that I refrain from hurried comments.

THE ELECTRIC LIGHT FOR DWELLING-HOUSES.

An experiment is now being made in Newcastle for the purpose of testing the adaptability of the electric light to household purposes. The question whether electricity can be made to supersede gas in lighting dwelling-houses is one of great interest, and it has been shown in more than one

case that the matter is merely a question of cost. Perhaps the great advantage of the storage cells in lighting dwelling-houses is the steadiness they give to the lights as compared with lights supplied direct from the dynamo-machine. The arrangements for switching on and off the lights in a house where electricity for domestic illumination has been adopted, and which I recently inspected, are very ingenious, and at the same time simple. The air in this large and fully occupied house at 9 P.M. was apparently fresh and pure, and the temperature agreeable—in marked contrast, I thought, to a gas-lighted house. I questioned the proprietor, who kindly gave me every facility in my inquiries, as to the probable comparative cost of the electric lighting, and he candidly said he thought it would be about the same as the gas, and that the gas-engine producing the current would use as much gas as it would take to light the house in the old way; but he thinks that the gain in comfort will be very great, and the saving in deterioration of furniture, clothes, paintings, &c., will be considerable. I left him under the impression that he would probably have to add to these advantages an improvement in health and diminution of doctors' bills; and although I felt some misgivings on the latter score, I looked on the experiment from a householder's point of view as eminently successful.

GLASGOW.

(From our own Correspondent.)

ANDERSON'S COLLEGE.

THE trustees of this institution held their quarterly general meeting recently. In the course of the meeting they rendered evident what has been made clear enough on various occasions—that their interest in their medical school is not of the liveliest description. Their object seems rather to make the college part of a large and comprehensive technical college, even at the sacrifice, if necessary, of the medical school. They made no appointment to the vacant chair of Physiology, for which indeed there was but one applicant. There is thus a prospect of the approaching winter session being commenced with the school crippled in this important department.

The profession in the West of Scotland has lost two well-known members lately: Dr. Henry Dunbar,[1] and Dr. Robertson, of Airdrie. Dr. Robertson, of Airdrie, was better known in business circles, and as a public man, than as a surgeon. He qualified fifty years ago, but did not continue long in practice, as he became one of the promoters of a scheme for the establishment of large iron works near Airdrie. He took a very prominent part in the discussion of all county and general public matters. The only professional position he retained was that of medical officer to the local prison.

Before Sheriff Lees, in Glasgow, a man and his wife were charged with exposing their son, twenty years of age, while he was suffering from small-pox. It was stated that great difficulty had been experienced in obtaining admission to the house on the part of the sanitary authorities; before they effected their purpose small-pox had broken out in the houses adjoining. The patient was afterwards found travelling about in an omnibus; he was then taken to hospital, and detained there three weeks. A small fine was imposed.

The Sanitary Congress, which met in Glasgow last week, was a decided success. Perhaps its two most striking events were the address by Dr. B. W. Richardson on "Felicity as a Sanitary Research," and a paper read by Mr. John Honeyman on the "Advantages of Low Ceilings in Small Houses." Dr. Richardson's address was most interesting and readable, though, as the president remarked, he "rubbed most of his auditors the wrong way." He discoursed on the evils of alcohol, of tea, of tobacco, and of love, without which most of us would have a very dull time of it in the world. Mr. Honeyman's paper was of a most revolutionary and startling kind, advocating for certain classes of houses a return to the system of piling up families in houses, on the "flat system," to the height of seven storeys in streets twenty feet wide.

[1] A short sketch of Dr. Dunbar's career will be found in the next column.

SCOTTISH NOTES.

(From our own Correspondent.)

SPLENDID BEQUEST TO ST. ANDREWS UNIVERSITY.

IT has been announced that Sir W. T. Thomson, K.C.M.G., C.B., who died some weeks ago, has bequeathed, subject to the life rent of his brother, the residue of his estate as a bursary fund for St. Andrews University. It is expected that the amount available will be about £30,000, and the bursaries are to be "for students of both sexes, in equal numbers; and in the case of females, to assist them, as far as practicable, in qualifying themselves to enter the medical profession." This last condition (if the ladies are to remain as St. Andrews students) will cause a serious difficulty to the authorities, as, in the first place, the present science teachers are against the teaching of female medical students, and also against their own removal to Dundee—the only method of forming a complete medical school, or indeed *any* medical school, in connexion with St. Andrews. This, however, is anticipating; and many changes will in all probability have taken place before this unexampled nugget drops into the now almost empty coffers of St. Andrews.

CLOSING OF A HOSPITAL.

It appears that the hospital known as the Adamson Institute, in Fife, will now be closed for want of funds. This is to be regretted, but it has all along been looked upon as inevitable, the building being in a remote country district, and placed there through some legal quibble, instead of at Cupar, where in reality it would have had a most useful field. We have here a hospital closed for want, whereas the other side of the county is bemoaning the want of a hospital.

ABERDEEN UNIVERSITY COURT.

At the meeting of this body, held last week, notices of motions regarding the Universities (Scotland) Bill were given by Dr. Bain, the Lord Rector, and by Dr. Webster, M.P., and these will be discussed at the next sederunt. The court apparently object more especially to the proposed practical disestablishment of the universities, and to the small annual allowance (£40,000) which is named in the Bill as the maximum annual allowance from the public funds in the future. The members, in common with all interested in this question, look with alarm at these particular proposals, which would ere long embarrass these institutions, and effectually limit their usefulness. The remarks of Drs. Bain and Webster will be looked forward to with interest. At the same meeting the following gentlemen were appointed Examiners in Medicine for the year:—Dr. John Alexander, Western Infirmary, Glasgow; Dr. James Anderson, London; Dr. A. Campbell, Dundee; Dr. Edmond, Stonehaven; Mr. Frederick Treves, London; and Dr. Wilson, Old Deer. Mr. David Prain, M.A., M.B., and Dr. Hall were appointed as assistants to the Professors of Anatomy and Materia Medica respectively.

HENRY DUNBAR, M.D.EDIN. (GARELOCH HEAD).

After a few years of learned leisure, and at the age of sixty-seven years, Dr. Dunbar died on September 25th, at Boscobel, near Helensburgh, the end coming rather suddenly. The deceased gentleman was the son of Prof. Dunbar, who occupied the chair of Greek in the University of Edinburgh, and was known as a distinguished scholar. Henry Dunbar took his degree at Edinburgh in 1841, and had throughout life been of a roving disposition: at times engaged in practice, again in the French transport service, and latterly in the merchant marine. For his services to the French sick and wounded during the Crimean war he was offered the Cross of the Legion of Honour, as well as a very handsome present; but he declined the usually coveted decoration. After a few years in the Transatlantic steamships, he commenced country practice at Drummore, in Wigtonshire, and there his high tone, socially and professionally, was not unappreciated by his most lowly patients. A few years' practice here satisfied his zeal in that direction, and he retired to pursue his literary labours, which had all along been his chief enjoyment. He retained the love of Greek, which he had such means of cultivating in early years; and so distinguished was his success as a scholar and a linguist that a

few years ago, on the recommendation of Mr. Gladstone, he had a Civil List pension of £80 conferred on him. Perhaps his "Concordance to the Odyssey of Homer" is his best known work; but lighter literature had also a share of his attention, as is evidenced by his translation of several French novels and the publication of an original novel entitled "Gentleman Hamilton."

THE SERVICES.

ARMY MEDICAL DEPARTMENT. — Surgeon-General Edward James Franklyn, M.D., has been granted retired pay.

RIFLE VOLUNTEERS.—5th Cheshire: Surgeon George Bland resigns his commission.

ADMIRALTY.—Staff Surgeon Nicholas Thomas Connolly has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of 25th September, 1883.

The following appointments have been made:—Surgeon Archibald Mac Kinlay to the *Swinger*; Surgeon Henry Scanlan, M.B., to the *Belleisle*, vice Mac Kinlay; Donald Morison, M.B., to be Surgeon and Agent at Alrome, vice Dickson.

THE HIND FUND.

THE following additional subscriptions have been received since our last announcement:—

Dr. W. J. Bryant	£5	5	W. D. Dunn, Esq.	£1	1
G. A. Critchett, Esq.	5	5	T. Harley, Esq.	1	1
Dr. F. J. Mouat	5	0	A. J. Purnell, Esq.	1	1
A Friend	3	3	An Old Pupil	1	1
A. Benthall, Esq.	2	2	J. J. Pope, Esq.	1	1
J. A. Gattley, Esq.	2	2	John Messent, Esq.	1	1
J. H. Lilley, Esq.	2	2	J. Brown, Esq.	1	1
Dr. Rogers	2	2	J. Baines, Esq.	1	0
A. J. Pepper, Esq.	2	2			

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Sept. 27th:—

Appleford, Stephen Herbert, Finsbury-circus.
Clayton, Geoffrey Sherborne, Fairfax-road.
Skardon, Charles Chapman, Westbourne-park-crescent.
Wilson, John Grant, Monmouth.

The following gentleman also on the same day passed the Primary Professional Examination:—

Forden, George, Stafford Infirmary.

UNIVERSITY COLLEGE MEDICAL SOCIETY.—At a meeting to be held on Wednesday, Oct. 17th, at 8 P.M., in the Botanical Theatre, University College, Dr. Maudsley will deliver an address on Heredity and Disease.

A SEVERE outbreak of small-pox is reported to have occurred at Prague, the cases mostly being in the Zizkow quarter. Three hundred persons are said to have been attacked, and out of this number ninety have died.

BEQUESTS AND DONATIONS.—The Belfast Royal Hospital has been left £100 by the late Mr. Robert McGeagh, and has received a donation of £50 from Mr. Matier. The Hospital for Incurables, Dublin, £100 from Mr. H. Roe.

TWELVE nurses are to be sent from St. Thomas's Hospital to Haslar Naval Hospital, Portsmouth, to superintend, under the direction of the medical staff, the nursing of the patients in that institution.

ST. JOHN AMBULANCE ASSOCIATION.—At a meeting of the Central Executive Committee of this Association, held on the 28th ult., it was stated that several interesting cases in which first aid had been rendered by certificated pupils had recently been reported. Amongst those referred to were the accident at Middlesborough-on-Tees on the 19th ult., when Mr. Davison lost his life and several workmen were injured by the upsetting of a ladle of molten iron; and a case at Woolwich, in which two constables, who had undergone a course of training, saved the life of a boy from their knowledge of how to treat the apparently drowned.

THE SWINEY PRIZE.—The Council of the Society of Arts have announced that the next award of the Swiney Prize, which consists of a goblet of the value of £100 and a sum of money to the same amount, will be made in January, 1884.

MR. WORRELL, hon. sec. to the St. Pancras Female Orphanage in Hampstead-road, states that the epidemic of typhoid fever in the North of London, to which we alluded in a recent issue, has prostrated 20 per cent. of the inmates of that institution.

ST. MARY'S HOSPITAL.—The annual dinner of the past and present students of the medical school took place on Monday, October 1st, at Limmer's Hotel, George-street, Hanover-square, those present numbering about 130. Mr. Spencer Smith occupied the chair.

GREAT progress has been made in perfecting the arrangements for the demonstration and church parade on Oct. 14th, in aid of the Victoria Hospital for Children, Chelsea. The report for 1882 shows that 667 children were admitted as in-patients, and 20,298 as out-patients.

A SERIOUS carriage accident happened on the 2nd instant, at Crewe, to Dr. Haughey. The horse took fright and the carriage came into violent contact with a lamp-post. Dr. Haughey was thrown across the road, and falling on his head was rendered unconscious. Only faint hopes of his recovery are entertained.

THE METROPOLITAN ASYLUMS BOARD.—The number of fever patients admitted into these hospitals for the last four weeks, according to returns presented to the board on the 29th ult., is thirty-eight in excess of the number admitted during the previous four weeks; and the number of small-pox patients admitted during the same period shows an increase of eight over the figures for the previous month.

ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—A special meeting of the Council of the Association of Public Sanitary Inspectors has been held, at which the following were elected honorary members:—Sir Robert Rawlinson, C.B., Mr. Edwin Chadwick, C.B., Dr. B. W. Richardson, F.R.S., Dr. W. Collingridge, M.A., Mr. J. W. Tripe, Dr. W. H. Corfield, M.A., Mr. E. C. Robins, F.S.A., Mr. Baldwin Latham, M. Inst. C.E., Mr. W. Eassie, C.E.

NEW EYE HOSPITAL AT MANCHESTER.—Plans have been prepared and an excellent site secured at Chorlton-on-Medlock for this building, which is intended to accommodate 100 in-patients, and to have arrangements requisite for the daily attendance of 400 out-patients. The wards, on the pavilion principle, will be 20 feet wide, and divided longitudinally by dwarf wooden screens. Isolated wards are provided for infectious cases, and the corridors are sufficiently wide for, and are intended to be used as, ambulatories in inclement weather. In the dormitories 1300 cubic feet of air are allowed to each patient.

CONVERSAZIONE AT GUY'S HOSPITAL.—On the evening of October 1st the annual conversazione was held at Guy's Hospital, and was more largely attended than on any previous occasion, three thousand persons being present. The spare ward, which is one of the three large wards, was the centre of attraction, as it was handsomely decorated and the walls hung with several oil paintings; in this room were many very interesting exhibits from all the best London scientific instrument-makers, and also an extensive show of artistic goods from several large manufacturers. The special feature last year—namely, the anthropometric chart—was repeated on this occasion. Every visitor had given him together, with the programme, a printed sheet on which was set forth that he could have his blood examined, pulse tracing taken, colour-blindness tested, and so forth, a vacant space being left for the gentleman who performed the testing to fill up the result. During the evening Messrs. Coote and Tinney's band played at intervals. The pathological and anatomical museums were lit up with the electric light, and there was a table reserved for all the new specimens added to the museum this year by the curator, Dr. Goodhart. The physiological class-room was by means of telephones connected with the room in which the band played. There was also a loud speaking instrument, which not only transmitted

the music, but at the same time made it audible to all in the room, however far they were from it. During the evening the prizes were distributed to the successful students by J. S. Gilliat, Esq., Governor of the Bank of England, and one of the Governors of the Hospital. After the distribution, a vote of thanks to Mr. Gilliat was proposed by Dr. Wilks, and seconded by Mr. Bryant. The open scholarship in art has been awarded to Mr. G. H. Pennell, and the scholarship in science to Mr. E. H. Starling.

THE HARROGATE WATERS.—At an inquiry recently held at Harrogate in reference to the application for a charter of incorporation, several medical men gave evidence before the commissioner in favour of and in opposition to incorporation. Dr. Russell, on behalf of the promoters of the application, stated that among the medical profession knowledge of the waters was limited; that incorporation would render the development of the town a much easier matter; and that a visit of the British Medical Association would do much to instruct the profession as to the character of the springs. Dr. Somerville, on behalf of the opponents of the application, said that every medical man in the country knew thoroughly well the springs in Harrogate and their constituents, but was of opinion that medical men generally do not believe in them, and thought that no congress or meeting of them at Harrogate would alter their minds.

FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—The annual meeting for the election of office-bearers was held on Monday, the 1st instant. Over 100 Fellows were present. Dr. Andrew Fergus was elected president, being his second term in that office. Dr. Henry Muirhead (founder of the Muirhead Demonstratorship of Physiology in the University of Glasgow) was elected visitor. The new councillors elected were Dr. Robert Perry, Dr. James Christie, and Dr. T. Laprack. Of the four vacant examinerships, two were keenly contested. For that of Anatomy, the candidates were the out-going examiner, Dr. A. M. Buchanan, Professor of Anatomy in Anderson's College, and Mr. David N. Knox, Lecturer on Surgery in the Western Medical School. The former was elected. The other contest lay between Dr. W. J. Fleming, the retiring examiner on Physiology, and Dr. John Barlow, Lecturer on Physiology in the Royal Infirmary School. Dr. Fleming obtained the appointment. The examiners appointed for the Certificate in Public Health were Dr. J. M. Milne, Dr. Eben. Duncan, Dr. J. B. Russell, and Dr. James Christie.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ACLAND, THEODORE DYKE, M.A., M.B.Oxon., M.R.C.S., M.R.C.P.L., has been appointed Assistant-Physician to the West London Hospital, Hammersmith, vice David Alexander King, M.B.Lond., M.R.C.S., resigned.

BRANSON, HENRY JOHN, M.D., has been appointed Consulting Physician to the Sheffield Public Hospital and Dispensary.

BRUCE, JOHN, M.B., C.M.Ed., has been appointed Medical Officer to the County Poorhouse, Kirkwall, N.B.

BUCHAN, GEORGE, M.B., C.M.Glas., has been appointed Certifying Factory Surgeon for the Parish of Kilmaurs.

DAWSON, WILLIAM E., L.S.A.Lond., has been appointed Visiting Surgeon to the City Provident (Public) Dispensary.

DOWNING, CHARLES, L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Clinical Hospital for Women and Children, Manchester, vice W. A. Buchan, M.B., resigned.

DRAPES, THOMAS, M.B., has been appointed Resident Medical Superintendent to Enniscorthy Lunatic Asylum.

DUDFIELD, THOMAS ORME, M.D. St. And., L.R.C.P.L., has been appointed Medical Officer for the No. 5 District of St. Mary Abbots, Kensington, vice Godrich, resigned.

DYER, SIDNEY R., M.R.C.S., L.S.A.Lond., late Resident Physician's Assistant, Middlesex Hospital, has been appointed House-Surgeon to the Huntingdon County Hospital.

FORREST, JAMES ROCHEID, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator for the Brandesburton District of the Skirlaugh Union, East Riding, Yorks; also Medical Referee to the Prudential Life Assurance Company.

GREEN, G. R., M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer to the Inkberrow and Abbots Morton District of the Alcester Union.

HALLIBURTON, W. D., B.Sc., M.R.C.S., has been appointed Sharpey Physiological Scholar, University College, London.

HELM, ROBERT DUNDAS, M.B., C.M.Ed., has been appointed Assistant House-Surgeon to the Leith Hospital.

HILL, ALFRED B., M.D.Gies., L.R.C.P.Ed., has been appointed Public Analyst for the City of Coventry, vice Swete, resigned.

JACKSON, JOHN HENRY, M.B., has been appointed Senior House-Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, vice Mr. J. A. Webster, resigned.

LAWSON, THOMAS CORNELIUS, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator for the Atherbury District of the Atcham Union, vice Elmslie, resigned.

LITTLE, JAMES, M.D.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Maryport District of the Cockermouth Union.

LOWE, THOMAS PAGAN, M.R.C.S., has been appointed House-Surgeon to the Royal United Hospital, Bath, vice Gardner, whose appointment has expired.

MACPHERSON, ALFRED, M.B., C.M.Ed., has been appointed House-Surgeon to the Chester General Infirmary, vice King, resigned.

MALE, HERBERT C., M.B., C.M.Ed., has been appointed House-Surgeon to the Leith Hospital, vice R. T. Sutherland, M.B., C.M.Ed., resigned.

MATTERSON, ROBERT T., M.R.C.S., has been appointed Medical Officer for the Infirmary, Newark Union.

MOORE, FRED. FLOOD, L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer for the Second District of the Ormskirk Union.

MOORE, NORMAN, M.D.Cantab., F.R.C.P.L., has been appointed Assistant-Physician to St. Bartholomew's Hospital.

PROWSE, ARTHUR BANCKS, M.D.Lond., F.R.C.S.Eng. [not M.R.C.S., as stated last week], has been appointed Assistant-Physician to the Bristol Royal Infirmary.

REDMOND, JOSEPH MICHAEL, M.K.Q.C.P.I., L.R.C.S.I., Physician to the Mater Misericordia Hospital, has been appointed Joint Lecturer on the Practice of Medicine and Pathology in the Ledwich School of Medicine.

REES, DAVID VALENTINE, L.R.C.P.L., M.R.C.S., has been appointed Medical Officer for the Llangorse District of the Brecknock Union.

ROBERTSON, CHARLES A. J., has been appointed Senior House-Surgeon to the Ardwick and Ancoats Hospital and Dispensary, vice R. Martin, resigned.

SCOTT, HARRY, has been appointed Junior House-Surgeon to the Ardwick and Ancoats Hospital and Dispensary, vice C. A. J. Robertson, appointed Senior House-Surgeon.

WANKLYN, Mr. J. A., has been reappointed Public Analyst for the Borough of Buckingham.

WRIGHT, GASKOIN RICHARD MORDEN, L.R.C.P.Lond., M.R.C.S., has been appointed House-Surgeon to the Southport Infirmary, vice T. E. Carter, M.B.Lond., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BROCK.—On the 25th ult., at the Old House, Dorking, the wife of Alexander Cameron Brock, L.R.C.P.Lond., M.R.C.S., of a son.

DOUGLAS.—On the 1st inst., at Tantallon, Bournemouth, the wife of Justyn G. D. Douglas, M.D., of a son.

EVANS.—On the 24th ult., at Harwich, the wife of Samuel Evans, L.R.C.P.Lond., M.R.C.S., &c., of a daughter.

EVATT.—On the 30th ult., at Woolwich, the wife of Surgeon-Major G. J. H. Evatt, M.D., A.M.D., Royal Military Academy, of a son.

LLOYD.—On the 22nd ult., at Tyncoed, Barmouth, the wife of H. J. Lloyd, L.R.C.P., L.S.A.Lond., &c., of a son.

GAMGEE.—On the 29th ult., at Oaklands, Bowdon, Cheshire, the wife of Arthur Gamgee, M.D., F.R.S., of a daughter.

MCCLURE.—On the 30th ult., at Woodstock, Oxford, the wife of Thomas McClure, M.D., F.R.C.S., of a son.

WOOD.—On the 18th ult., at Lees Lodge, Yalding, Kent, the wife of E. J. Wood, Esq., M.B.Cantab., &c., of a son.

MARRIAGES.

CROSSLEY — NUTTALL. — On the 27th ult., at St. George's Church, Leicester, Charles Crossley, M.R.C.S., eldest son of C. R. Crossley, Esq., J.P., to Janet, elder daughter of H. Nuttall, Esq., M.D.

MARSH—MAY.—On the 26th ult., at St. James's Church, Devizes, Charles J. Marsh, M.R.C.S., L.R.C.P., of Yeovil, son of John Marsh, of Whittlebury, Northamptonshire, to Emily Neale, eldest daughter of Charles Neale May, of Elm Lodge, Devizes.

NOAKES—NOAKES.—On the 2nd inst., at St. Andrew's, Wells-street, by the Rev. J. M. Andrews, Vicar of St. Jude's, Gray's-inn-road, assisted by the Rev. R. C. Hill, the Rev. Arthur John Noakes, M.A., of Christ's College, Cambridge, to Florence Mary, youngest daughter of the late John Noakes, surgeon, of Newhaven, Sussex.

ROGERS—SYKES.—On the 27th ult., at Holy Trinity Church, Paddington, Surgeon-Major J. G. Rogers, M.B., Army Medical Department, Principal Medical Officer Egyptian Army, to Edith Louisa Julie, daughter of the late Major W. H. F. Sykes, Bombay Cavalry.

ROTH—HART.—On the 28th July, at Sydney, N.S.W., Reuter Emerich Roth, M.R.C.S., fourth son of Dr. M. Roth, of London, to Miss Lillie Hart, of New Zealand.

SHAW—EDWARDS.—On the 26th ult., at St. Leonard's Church, Minety, Wilts, Frank Herbert Shaw, M.R.C.S., of Nicholas-street, Chester, third son of Dr. A. R. Shaw, of St. Leonard's-on-Sea, to Fanny Mary, second daughter of the Rev. John Edwards, Vicar of Minety.

DEATHS.

DUNBAR.—On the 25th ult., at Boscobel, Henry Dunbar, M.D. Ed., aged 67.

EVERITT.—On the 24th Aug., at Tarkastad, South Africa, Herbert Everitt, M.R.C.S., and youngest son of Isaac Everitt, of Great Ryburgh, Norfolk.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Oct 4th, 1883.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Sept. 28	29·72	W.	56	53	105	65	50	·30	Cloudy
,, 29	29·29	W.	53	50	98	66	50	·25	Cloudy
,, 30	29·29	S.W.	50	49	..	56	44	·45	Raining
Oct. 1	29·68	N.	50	47	93	56	47	..	Cloudy
,, 2	30·00	N.W.	48	44	93	56	41	·07	Bright
,, 3	29·71	W.	50	48	..	51	46	·04	Overcast
,, 4	29·50	N.	50	47	..	53	42	·27	Overcast

Medical Diary for the ensuing Week.

Monday, Oct. 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

Tuesday, Oct. 9.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, Oct. 10.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—7.15 P.M. Council.—8 P.M. Dr. Stephen Mackenzie, "On some of the rarer Skin Diseases."

Thursday, Oct. 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8½ P.M. Address by the President (Mr. Hutchinson, F.R.S.).—Dr. S. Mackenzie, "On some Cases of Retinal Hæmorrhage."—Dr. Sharkey, "On a Case of Homonymous Hemianopia due to a Cortical Lesion." Mr. Nettleship:—1. "On a Case of Homonymous Hemianopia due to Lesion of Chiasma or Tract." 2. "On a Case of Sympathetic Iritis following immediate Excision of the Eye for injury."—Living Specimens at 8 o'clock:—Dr. J. A. Ormerod: Left Hemiplegia, with subsequent Contraction of the Field of Vision of the Opposite Eye.—Dr. Brailey: Two exceptional Cases of Glaucoma."
ABERNETHIAN SOCIETY (St. Bartholomew's Hospital).—Introductory Address, by Mr. Butlin.

Friday, Oct. 12.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—Dr. Goodhart, "On Three Cases of Peritoneal Abscess in Children."—Dr. Bastian: 1. "On an Anomalous Case of Cerebro-Spinal Sclerosis." 2. "On Rupture of a large Aneurism in the Left Corpus Striatum, with Intra-ventricular Hæmorrhage, and extreme lowering of rectal temperature." 3. "On Apoplexy in a boy aged fifteen, with Intra-ventricular Hæmorrhage, Convulsions, and Death in four hours."—Dr. Althaus, "On a Case of Syphilis of the Cerebral Arteries, with Gummatous Tumours permeating the Dura Mater."

Saturday, Oct. 13.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

HYGIENE AND THE SCIENCE AND ART DEPARTMENT.

MR. W. E. CROWTHER, hon. sec. of the Technical School, Manchester, in a letter to the *Manchester Guardian*, while admitting the necessity for some physiological instruction preceding or concurrent with the teaching of hygiene, expresses his regret that the Lords of the Committee of the Council upon Education have decided that payment shall be made on the results of the examination in this subject of such candidates only as have at the same or at a previous examination passed in the elementary stage of animal physiology. Mr. Crowther points out that medical men whose names appear in the Directory will, on application, be registered as teachers; and as institutions will naturally prefer to have their classes in hygiene and physiology taught by the same person, the effect of the regulation will be to dispossess teachers of physiology of their classes; whereas if the department had allowed teachers of physiology to teach also hygiene under the ordinary regulations as to grant, not only would the former subject thus obtain a very desirable lift into popularity and practical usefulness, but also a very salutary and fair increase of grant would have accrued to a somewhat poorly remunerated class of teachers.

Dr. Gourley.—By the 5th section of the 1st Vict., c. 68, s. 2, it is enacted that the medical officer whose duty it may have been to attend the deceased as such medical officer shall not be entitled to any fee or remuneration. The medical officer should be duly summoned by formal notice.

REMOVAL OF REFUSE.

To the Editor of THE LANCET.

SIR,—Seeing the short article in your last number on the removal of dust and refuse, I am induced again to write a few lines to press the matter upon the attention of the medical profession. A considerable time ago a letter of mine appeared in THE LANCET (penned in the hope that interest might be aroused upon the subject) urging the necessity of agitating for a complete alteration in the present existing bye-laws concerning the removal of refuse from the houses in London and the suburbs. The arrangements as now existing are simply monstrous, allowing refuse matter to remain nominally for a fortnight, and actually, as I can prove, for months, decomposing and giving off foul gases undisturbed! I consider dust receptacles ought to be cleaned out every day in summer, and during the cold months at least once a week. I have endeavoured to get personal friends on the vestry of this district to take the matter up, but have invariably been met by the objection that the removal of refuse lies with the Board of Works, and not with any vestry. If such is the case, I maintain that what concerns our health and comfort should not be left to the red-tapeism of any Board, and think that agitation should not cease till every district has the management of such local matters. I consider, further, that in each parish an inspector should be appointed whose duty would be to see that contractors fulfilled their obligations properly, instead of obliging householders, as in the present state of affairs, to bribe dustmen to empty the bins, or else to be poisoned by vile smells.—I am, Sir, yours, &c.,

Putney, Oct. 1st, 1883. G. STANLEY MURRAY, M.D.

Dr. A. W. Sheperd.—We are not aware that a complete list of such institutions is published.

ENTERIC FEVER.

To the Editor of THE LANCET.

SIR,—I have at the present time under my care three cases of enteric fever in the same family. Two of these, who are boys, aged respectively nine and two, commenced their attack with otorrhœa. Is not this a very rare beginning? Perhaps your readers will kindly inform me.

I am, Sir, yours truly,

Albrighton, Sept. 26th, 1883. JOHN COVENEY, M.R.C.S.

AN EXTRAORDINARY CIRCULAR.

THE following circular will be read by the profession with mingled feelings, which we shall not attempt to analyse:—

"Dr. T. Duddingston Wilson was educated at the Edinburgh Academy, where he gained two medals and a number of prizes. He then took a degree both in Arts and Medicine at the Edinburgh University, where amongst other prizes taken was the Neil-Arnott for Physics, of the value of £40. After leaving the Edinburgh Hospital, where he had been clinical clerk in the eye wards for six months, he acted as house-surgeon in Leith Hospital for fifteen months, and then studied in Paris for six months. Owing to ill-health he made a voyage to Australia as medical superintendent of a New South Wales Government emigrant ship, then lived as private physician with an invalid baronet, and afterwards for three years held the post of resident physician to Craiglockhart Hydropathic. During the rest of his professional life he has practised in Edinburgh as assistant to his father, Dr. David Wilson, long resident and well known in Edinburgh. Dr. Wilson holds testimonials and certificates showing the satisfaction he gave in all these posts, and is well known to nearly all the leading physicians and surgeons in Edinburgh. He is an extraordinary member and ex-president of the Royal Medical Society, a Fellow of the Royal College of Surgeons, and a member of the Obstetrical and Medico-Chirurgical Societies. Dr. Wilson is married."

STIMULANTS IN THE PARIS HOSPITALS.

THE total amount of wines of various sorts adjudged for the supply of the hospitals of Paris for the next six months is 1,245,000 litres. For three months the spirits ordered for consumption in the hospitals are 33,000 litres, of which 3000 are of brandy, 10,000 of rum, and the remainder of "alcoöl du Nord."

Dr. Henry E. Armstrong is thanked for the forms for inquiry into infectious cases notified to the Health Department under the Newcastle Improvement Act, 1882. We shall be glad to hear at some future time from Dr. Armstrong as to the working of the Act.

THE AMENITIES OF VILLAGE PRACTICE.

To the Editor of THE LANCET.

SIR,—X and Y practise in the same parish. Y has been there a greater number of years than X has months, and is considerably his senior. They are on the most friendly terms, and X has acted for Y on several occasions when the latter was from home. An emergency having arisen recently in the absence of Y, X, at much inconvenience to himself and his patients, did four days' work for Y, who was very profuse in his thanks on returning. At the end of this locum-tenency X considered a very serious case of Y's in a more hopeful state than when he first saw it, that also being the opinion of the parents. Four days after handing it over to Y the case terminated (as Y expressed it to X) in rather sudden death. X has it on good authority that Y told the parents to the effect that X did not treat their child properly, and that if he (Y) had seen it sooner death would not have resulted. They (as was possibly expected) did not keep the cowardly remark to themselves. The case was one which admitted of no dispute as to diagnosis, and little or none as to treatment; and X is confident Y could not and would not defend the malicious statement.

I shall be obliged to you for your opinion of Y's behaviour, but I am more anxious to know how X should act now in reference to the case cited, and how he ought to conduct himself towards Y in the future.

I am, Sir, yours obediently,

Oct. 1st, 1883. PAX (BUT NOT AT ANY PRICE).

*** It is so incredible that Y should have acted as our correspondent represents that the very least X can do is to assume some incorrectness of the report until, by friendly application to Y, he can be sure of the facts. Supposing them to be as represented, Y's behaviour is such as to admit of no excuse. Apology would be the only way of giving even magnanimity a chance for resuming any friendly relations. But incredulity is the first proper attitude of the mind towards such reports.—ED. L.

Mr. Montague H. C. Palmer.—We can see no reason why our correspondent should not have his fee. The refusal of it on the ground mentioned savours of the ridiculous.

HONOUR AMONGST PROFESSIONAL MEN.

To the Editor of THE LANCET.

SIR,—A and B are the sons of old practitioners in the same town, living more than a mile apart, on intimate terms, and fellow-students. A succeeded to the practice on the decease of his father, two years and a half ago. B has been helping in his father's practice. A suddenly dies, and his practice, appointments, &c., are offered for sale. Within a week of his death B takes a house next door, puts up his plate, and represents to the public that he has taken A's practice, when no offer or mention of his intentions had been made to the family of the deceased, who thereby sustain a considerable pecuniary loss, which they can ill afford.

I am, Sir, yours &c.,

Sept. 26th, 1883. DISGUSTED.

*** Supposing our correspondent's version of the facts to be true, the profession will agree with him in a feeling of disgust for such conduct as that of B.—ED. L.

THE CLIMATE OF JAMAICA.

THE *Kingston Gleaner* reports the death of a resident of Mount Prospect, Jamaica, at the age of 125 years. Our contemporary regards the case as an argument for revision of the prevailing opinion of the unhealthiness of the climate of Jamaica. But we are not aware of any reason why an inhabitant of the island, if he escapes the frequently occurring epidemics, does not reside near a morass, and rejoices in the possession of an unusual amount of vitality, should not exceed the average term of human life. A correspondent to whom we are indebted for calling our attention to the extract states that he has lived in Jamaica for fifty years, and is now, in his seventy-third year, in robust health. Moreover, the death-rate there, he says, is lower than that of London.

ASTOUNDING OPERATION AT RAWTENSTALL.

THE *Rawtenstall Free Press* gives a wonderful account of an operation on the thigh by Drs. Corts and Green. Such puffing paragraphs are very unkind to the professional men concerned, and we will not do the readers of our contemporary the injustice to imagine that they derive pleasure from reading such stuff.

THE ADMINISTRATION OF ANÆSTHETICS AT HOSPITALS.

To the Editor of THE LANCET.

SIR,—May I take the liberty of addressing you on what I venture to call an evil in hospital management? It is the practice at some hospitals to bring up patients into the operating theatre and give them an anæsthetic before a crowd of students, &c. I believe such a course is frequently unnecessary, and I am convinced it is cruel. I cannot find any good reason why patients (and I refer especially to women) could not have an anæsthetic given before they are placed upon the operating table. What happens now? A woman, naturally nervous and anxious about the coming operation, is brought up and placed upon the table; she looks round to see where she is, and finds herself face to face with a more or less crowded theatre, and she then awaits the arrival of the chloroformist. The surgeon in charge explains the case to the students present as she is passing under the influence of the anæsthetic, or occupies the time in conversing with courteous amiability to the "distinguished foreigner" or a "fellow practitioner." Could not the anæsthetic be given either in the ward or in a special room for that purpose? I complain of an evil that could be easily remedied, and consider that a woman in a well-conducted hospital ought to be able to undergo an operation without knowing she has left the ward.

The outside public, though ready to obtain advantages from hospital treatment, are ever watching for some loophole for complaint or scandal, and the proper authorities have it in their power to show them that the study of surgery does not produce any indifference to the sensitive feelings of our nature, and to point out to those who assume to themselves a monopoly of humane feeling that they are ever ready to remedy a source of suffering or to save the infliction of unnecessary pain. Hoping you will have room for these few lines in your columns, believe me, Sir, your obedient servant, GEO. H. DE'ATH.

Guy's Hospital, S.E., Sept. 26th, 1883.

Inquirer.—The police authorities are responsible, and our correspondent should press them.

Dr. Gabbett.—The paper is under consideration.

Inquirer has not enclosed his card.

"TREATMENT OF HEART DISEASE."

To the Editor of THE LANCET.

SIR,—Under the above heading your correspondent, "R. P.," in your issue of Sept. 21st, suggests a plan of treatment for tumours based upon somewhat vague theoretical reasonings. It may interest "R. P." to know that as a dressing for foul ulcerating cancers the "digestive fluids" have been tried. I myself gave this plan a fair trial, but was disappointed in the results. The ulcerated surfaces appeared in two or three cases to clean a little under the influence of the digestive process, but the cancerous growth was not affected in any case by the dressing. I should be glad to learn whether my experience in this is borne out by others who have tried this plan of treating cancers.

I am, Sir, yours truly,

WM. THOS. JACKMAN, M.R.C.S., &c.

Coggeshall, Essex, Sept. 24th, 1883.

To the Editor of THE LANCET.

SIR,—At page 523 of THE LANCET there is a suggestion from "R. P." to use a digestive agent to dissolve tumours. This idea is not, however, original. A glance at Section 1659:3 of the Medical Digest at once shows that pepsine was used in 1867, and papaya juice in 1880.

I am, Sir, yours, &c.,

RICHARD NEALE, M.D. Lond.

Boundary-road, N.W., Sept. 26th, 1883.

A REQUEST.

To the Editor of THE LANCET.

SIR,—I shall be much obliged to any of your correspondents who will inform me of any case of tremors, spasm, or paralysis occurring in the arms of those whose occupation it is to polish lenses, or to perform similar work involving continuous pressure against a rapidly revolving wheel.

I am, Sir, yours, &c.,

Upper Berkeley-street, W., Oct. 3rd, 1883. H. DONKIN.

DOCTORS CONSIDERED AS COMMISSION AGENTS.

WE have received from several correspondents a circular offering the medical profession a commission of 10 per cent. on orders for patent collars and baby linen! Hitherto undertakers have been the only class of tradesmen who, with a sort of grim humour, have thus tempted the members of a somewhat non-lucrative profession. Now it is proposed that we should co-operate with milliners and dressmakers! What next? We shall not advertise the lady who designs this questionable honour for the profession, lest in so doing we advertised her wares, which should be avoided.

"A SUBJECT FOR EXPERIMENT."

Mr. T. R. Allinson, L.R.C.P. Ed., asks us to state that letters on the subject referred to under the above heading will be forwarded to him if directed to the care of Nichols and Co., 23, Oxford-street, W.

One in Doubt.—Such delicate questions cannot be answered by a bare monosyllable. We are not prepared to say that it might not become C's duty to attend A, who, in the long run, has a perfect right to have whom he chooses to attend him; but he should not willingly agree to do so.

J. T. D.—Dr. Beale's Urinary Deposits, two roller sheets, published by Messrs. Churchill; and Dr. Ralfe's Clinical Chemistry (Cassell & Co.)

Dr. G. Hutcheson.—The paper has been received.

SOUND CLARET.

To the Editor of THE LANCET.

SIR,—No stimulant is so frequently ordered for patients by doctors as claret, and no wine is so excellent when free from acidity; it therefore becomes, both for sanitary and luxurious reasons, of the greatest importance to prevent the fermentation which produces vinegar. How often does it happen that in drinking, day by day, a dozen of claret, at say £1 1s. per dozen, one or two bottles are found deliciously free from acidity and in just as prime a condition as when the wine was first made? Why is this? Obviously because (every precaution notwithstanding) air has permeated through the corks of the unsound claret. One can buy claret quite sour at about 18s. a dozen, for which, if sound, scores of people would give treble the amount. I now offer as a suggestion that bottles should be manufactured with such a neck as could easily be broken when they were required to be emptied, and which, at the time of filling, could be rendered hermetically air-tight by the glass being fused, as is done to a thermometer.

I am, Sir, yours obediently,

Brighton, Sept. 29th, 1883. M.D.

Aspirans.—1. Anatomy, Quain. 2. Comparative Anatomy, Huxley or Gegenbaur. 3. Physiology, Foster. 4. Surgery, Erichsen.

Enquirer.—The address of the Secretary is 3, Gibson-square, Islington, N.

Mr. Bartleet.—The paragraph appeared in our last number.

"HOSPITAL NURSES."

To the Editor of THE LANCET.

SIR,—I was truly pleased to see the letter on the above subject in your number of Sept. 22nd. I am of opinion, and trust that I am right, that there is but one hospital in London where the nurses are so treated. If you knew all the circumstances, I think you would find that there are nurses there who have had no holiday at all for sixteen months, also that probationers are only given one week in their probation year. It is no wonder that the nurses take typhoid from their patients. The sewers were not in fault. Now let them find out if overworking their nurses has anything to do with it.—I am, Sir, yours obediently,

Sept. 26th, 1883. VERA.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Longmore, Netley; Sir H. A. Pitman, London; Dr. Brown Séquard, Paris; Dr. Russell Reynolds; Mr. C. Roberts, London; Dr. Sydney Ringer, London; Mr. Carrington, London; Mr. Paul, Liverpool; Dr. Charles West, Nice; Mr. E. Reynal-O'Connor, Buenos Ayres; Mr. A. E. Hind, Tewkesbury; Mr. Lane, San Francisco; Mr. Somers, Roscrea; Mr. R. Maguire, Manchester; Mr. Crowther, Manchester; Mr. W. H. Bennett, London; Dr. Gourley; Mr. Knox Shaw, St. Leonards; Mr. Nelson Smith, London; Dr. E. S. M'Kee, Cincinatti; Mr. Bennett May, Birmingham; Dr. Littlejohn, Edinburgh; Brigade-Surgeon Macdowall; Mr. C. Roberts, London; Dr. M'Call, London; Mr. A. Neve, Kashmir; Dr. F. J. Mouat; Mr. A. B. Barrow, London; Mr. Mills; Mr. T. H. Huxley, London; Mr. G. E. Herman, London; Mr. Vacher, Birkenhead; Mr. W. H. Denham, Southsea; Mr. E. Ray Lankester; Dr. J. H. Arton, Winnipeg; Mr. R. Walker, Aberdeen; Dr. Stanley Murray; Dr. Seymour Sharkey, London; Mr. Fen, Dover; Messrs. Hooper and Batty, London; Mr. Watts, Frampton-on-Severn; Mr. Stride, Brighton; Mr. Wenesay, Birmingham; Messrs. Lee and Martin, Birmingham; Dr. Cooke, Great Malvern; Messrs. Christy and Co., London; Mr. Lewis, London; Messrs. Baiss and Co., London; Mr. Wylie, Belfast; Dr. E. M. Smith, London; Miss Turner, Alston; Mr. De Franie, Aylesbury; Mr. Scott, London; Mr. Ballance, London; Dr. Acland; Mr. Bartleet, Birmingham; Mr. Forrest; Mr. Ormsby, Dublin; Mr. T. F. Clarke, Glenavon; Mr. G. S. Harrison, Sheffield; Mr. Tallack, London; Mr. G. Brown, London; Mr. Hackett Wilkins; Mr. R. Bull; Dr. Orange; Mr. Hale White, London; Mr. Maycock, Leamington; Mr. Hodgson, London; Messrs. Matthews and Co., London; Mr. Owen, Lepton; Mr. Armstrong; Mr. Abbott, Sheffield; Mr. Crawford; Messrs. Kegan Paul and Co., London; Mr. Brooks, Nottingham; Dr. Johnston; Mr. Armstrong, Manchester; Mr. Storr-Turner; Dr. Bralley, London; Dr. H. Donkin, London; Dr. Wickham Barnes, London; Herr Boerner, Berlin; A. D. E., Eastbourne; India; F.R.P.S., Brighton; Nemo; Pax (but not at any price); M.D.; One in Doubt; M.D., Geneva; An Edinburgh Subscriber; Surgeon, York; Hydro; M. B. C. M., London; Sigma; Aspirans; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Taylor, Southwark; Dr. Carden, Bath; Messrs. Smith and Son, Manchester; Dr. Powell, Peterchurch; Mr. Wilson, Birmingham; Messrs. Dale, Reynolds, and Co., London; Messrs. Maclachlan and Co., Edinburgh; Mr. Scott, Kelso; Mr. Lloyd, Barmouth; Mr. Birchall, Liverpool; Dr. Argain Zoniz, Mexico; Messrs. Bains and Sons, Leeds; Mr. Lilly, Atherstone; Mr. Crossley, Leicester; Messrs. Reynolds and Co., Leeds; Messrs. Beal and Co., Brighton; Dr. Waller, Peterborough; Mr. Ruspini, Knutsford; Dr. M'Kenzie, Burnley; Mr. Fen, Dover; Mr. Wade, Kingston-on-Thames; Mr. Carr; Mr. Johnston, Leiston; Mr. Hamilton, Swadlincote; Mr. Hannaford; Mr. Twiny and Co., Swansea; Mr. Walter, Liverpool; Mr. Noakes, Kingston; Mr. Taylor, Southwark; Mr. H. Smith, London; Mr. Clark, Reading; Mr. May, Finsbury-park; Mrs. Milligan, Norwood; Mr. Weekes, Chatham; Mr. Watts, London; Mr. Douglas, Leicester; Mr. Brock, Dorking; Mr. Ellis, Dines; Mr. Whitcone, Birmingham; Mr. Leggan; A. T.; G. P.; A. B. C.; Medicus, Barnsley; R. B., Taunton; A., Preston; D. B.; Medicus, Cardiff; J. C. C., Glasgow; M.D., Bristol; An Old Pupil; W.; T. J. C., Oldham; R. S., Dublin; H. S., Kidderminster; Assessor; Curator, Birmingham; A. B., Preston; Medicus, London; E. E., London; D. F. G.; L. M., Lewisham; Fides, Turnham-green; R. W.; W. T.; A. B.; Medicus, Leeds; F.R.G.S.; J. S.; Principal, St. Leonards-on-Sea; &c., &c.

The Planet, Reading Express, Halifax Courier, North British Daily Mail, The Wheelman, Whitehall Review, Bombay Gazette, Liverpool Courier, Eastern Star, Australasian, &c., have been received.

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